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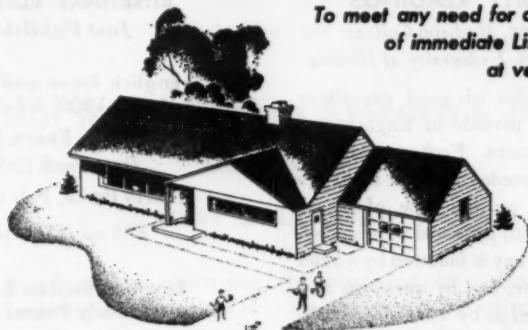
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JUNIOR COLLEGE JOURNAL

VOLUME XXXI

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Critical Issues Facing America's Junior Colleges

HENRY W. LITTLEFIELD

SELDOM HAS an educational conference been called at a more propitious time to consider such an important segment of higher education as this one on the two-year college. On every hand there are those who seek conscientiously to understand more fully the institution that currently enrolls one out of every four beginning college students. Whether it be a national commission appointed by the president of the United States, a state committee appointed by the governor, or a survey undertaken by professional educators, the answer is inevitably the same—junior and community colleges must provide both transfer and terminal educational opportunities for a substantially increased proportion of the college population in the years ahead.

The American Association of Junior Colleges is deeply appreciative of the opportunity provided by a grant from Lilly Endowment, Inc. to join with the Center for the Study of Higher Education of the University of California at Berkeley

in sponsoring this conference which for the first time brings together leaders from government, industry, labor and the various areas of education for the express purpose of examining the critical issues in junior college education. In some ways such a conference might have been premature if held earlier. As a result of a grant from the W. K. Kellogg Foundation to the American Association of Junior Colleges for the purpose of undergirding the Association's commissions on administration, curriculum, instruction, student personnel and legislation, we are in a position to implement the findings of a conference such as this. The opportunities for follow-up and for a continuing study of the issues have never been greater.

The fact that the junior colleges of the country welcome this conference is ample evidence of their willingness to expose themselves to the closest scrutiny of a cross-section of national leaders in order that a better image of these institutions may evolve. Anything that will contribute to increased public understanding of the true picture of the two-year institution is commendable.

HENRY W. LITTLEFIELD is President of the Junior College of Connecticut, Bridgeport, Connecticut. He is also the current president of the American Association of Junior Colleges.

* This speech was presented to the Berkeley Conference on the Two-Year College.

In looking ahead to the conclusion of the deliberations of this conference, it is hoped, and there is every expectation, that certain significant outcomes will result. A premise that has guided the planners of the conference is that in the immediate period ahead junior and community colleges will grow at a rate greater than any other segment of higher education. Viewed by many as a new, young, flexible, and changing institution, the final determination of its direction is far from charted. We believe that better guide lines for giving shape and substance to defining the role of the two-year college are possible if the impact of the thinking of leaders in the various fields of our national life is coordinated with and welded into that of the professional junior college leadership. While this conference is not a policy making group, it stands in a position to provide some valuable broad determinants that can be reduced to writing and can be of inestimable value to the many and varied forces and organizations that are participating in charting the immediate and long-range direction of the two-year college.

The task that faces this conference is neither easy nor simple because the problems themselves are complex. It is not easy to arrive at a clear-cut understandable definition of junior colleges which is acceptable to the various types of institutions which bear the name. Somehow there has developed a provincialism which in California views the junior college as a comprehensive community college supported by public funds, whereas in New England, the junior college is more apt to be known as a residential college under church or independent auspices. For years leaders in the junior college field have struggled with

this problem of a common identity for this heterogeneity. To understand what we mean by the two-year college on a national basis it may be appropriate to refine and delimit our thinking further by developing not one but several definitions.

No one realizes more than the junior college leaders the great gulf between what the nation expects of them and what they are in a position to deliver in terms of meeting the needs of higher education for greatly expanded opportunities. It is indeed a sobering thought to know that leaders from all areas of our complex society view the junior college as the institution which will provide an opportunity for at least two years of college for all those who are qualified and who seek it at their doors. Much as the junior colleges are ready and willing to participate to the last full measure of their resources and responsibilities, it is absolutely unsound to expect junior colleges to do most of this job alone. Further, it is foolhardy to expand junior colleges without proper planning and safeguards to guarantee junior college graduates opportunities for further study at the four-year colleges and universities.

From its inception the junior college has been labeled as a unique institution distinctive to the American educational system. Efforts to determine its uniqueness have often failed because the examination of the institution has been concerned with its varied components which, when viewed independently, lack novel characteristics. Basically, the distinctiveness and uniqueness of the junior college are inherent in its consideration as a total complex institution. Among the facets that contribute to this uniqueness if viewed as the sum of the parts are: (1) its function of increas-

ing educational opportunity by extending it upward to include for more people at least two years of college, (2) its geographic situation in the local community which serves to decentralize higher education, thus providing a two-year college readily accessible to its potential students, (3) its programs, offerings, and services which make the institution not only community-centered but also community-serving, (4) its curriculum, which includes both transfer and terminal vocational-technical programs, (5) the identification of students who are capable of advanced work in colleges and universities, (6) the opportunity for students with wide divergence in their educational backgrounds to pursue studies at the college level, (7) its providing students with an opportunity to plug the gaps in their educational backgrounds as a preparatory step to successful college work, and (8) its faculty with a high degree of competencies in both academic and practical fields primarily interested in teaching. These and many other facets give distinctiveness to the junior college.

Undoubtedly, the determination of critical issues facing the two-year colleges depends to a large degree upon the respondent. By the very nature of its comparative newness, its comprehensiveness, its flexibility and its controversial characteristics, the very issues themselves cloud the image we seek so desperately to create.

Over the years certain basic issues have been resolved while a number remain to challenge our best efforts. Among those which many feel have been resolved are: (1) the recognition and acceptance of the junior college as part of higher education rather than as the upward extension of secondary schools, (2) the development

on a nationwide basis of junior colleges, some of which are public, tax-supported institutions, while others are private two-year colleges supported by church-related or non-sectarian groups, (3) the comprehensive program of the junior college with its transfer and terminal vocational-technical curriculums for the full-time student and the part-time adult, (4) the acceptance of the junior college as being primarily a teaching institution, and (5) the concept of the public junior college as a local institution whereas the private junior college may be either residential catering to a large geographic area or a community college.

Certainly this conference may wish to dispute the extent to which the foregoing is illustrative of the issues which have been resolved. However, it is essential that some of the deep-seated critical issues that face junior colleges be noted:

- (1) an issue that concerns junior college students is who should go to the two-year college? Is it the responsibility of the state to provide equal educational opportunities for all its youth through the fourteenth year or shall there be a technique for selective admissions?
- (2) an issue that concerns all higher education is whether it is better to meet the anticipated increase in college enrollments by decentralizing higher education through the establishment of two-year community colleges or by expanding four-year colleges with satellite extension centers.
- (3) an important issue that affects public understanding of the image of the two-year college is whether at a time when more and more people, within and outside the movement, are gaining deeper insight and keener understanding of the special vocabulary that has been developed and which includes such controversial words as *junior*, *terminal*, and *trans-*

- fer these words should be retained or whether these identification tags should be discarded for new phraseology.
- (4) another issue concerns efforts to define clearly the junior college—whether such efforts will result in definitions, purposes, and descriptions which will be sufficiently broad and inclusive to provide a tent for all junior and community colleges or will tend to standardize, make provincial, stultify and restrict the junior college potential.
 - (5) a critical issue that concerns the *curriculum offerings* is how to provide a variety of programs which include standard courses for the first two years of college, terminal curriculums in vocational-technical subjects, and specialized courses for adults while at the same time eliminating the concept in the minds of many students and faculty that education which is different is inferior in quality. Part of this same issue is the problem of introducing enough general education into vocational-technical programs to provide a reasonable background for living in a complex society while at the same time providing enough skill to meet the requirements of the job.
 - (6) still another issue concerns the extent to which the college is student oriented. With a wide range of student ability represented in its classes, how does the two-year institution achieve a reasonable balance between a sink or swim attitude and spoon feeding and coddling? How does the institution stimulate the intellectually superior while meeting the needs of the less capable?
 - (7) an important issue that concerns the junior college teacher is how to assimilate the academic teachers with the vocational-technical instructors to the end that each has an appreciation of the other's contribution to the total educational experience.
 - (8) a critical issue that concerns private junior colleges is how can we strengthen and keep strong the private junior colleges so they can continue to perform the unique functions of private education for this segment of our total educational system as the private colleges and the independent secondary schools do for their areas.
 - (9) an issue that concerns financing public junior colleges is the extent to which the American people will conceive of these institutions as a part of the tax-free system of public education or the extent to which the student and his family will be expected to bear an increasingly larger share of the costs through tuition and fees.
 - (10) finally, an issue that concerns legislation for public junior colleges is the nature of the laws which should be enacted in terms of whether they should provide for a highly centralized state system of two-year colleges or for institutions with local boards of control dedicated to meeting the special needs of their communities, or some combination of the two. These, then, are posed as ten critical issues facing the two-year colleges. Doubtless there are many more.
- In conclusion may I once more express the appreciation of the American Association of Junior Colleges to each of you for joining with us in a short but intensive look at the problems of the two-year college. We are confident that out of the deliberations of this conference will come suggestions, proposals, and recommendations that will materially assist in the development of an image of the junior college that will create in the minds of the professional educator and the layman an institution of stature, quality, and maturity capable of fulfilling in a creditable manner the needs of millions of youth who desire this kind of educational experience.

Financing the Public Community College: A Summary of Federal Aid, Corporation Aid, and Economies of Management As Sources of Revenue

CHARLES W. THOMAS

THE ESTABLISHMENT of a system of community colleges by individual states may prove to be the most important development in higher education during this decade. However, the capital expenditures required for the initial construction and continued operation of these institutions may be greater than many local communities and states can meet, especially in light of the increasing fiscal demands of local school districts and state institutions of higher education. If adequate systems of public community colleges are to be established, it seems that such institutions will be forced to look elsewhere for an increasing percentage of their basic fiscal resources. From the long range view, federal government aid, corporation aid, and economies of college management are promising possibilities.

FEDERAL AID AS A SOURCE OF REVENUE

President Kennedy has included federal aid to education as one of his major legislative goals. While there is a possibility

that some form of federal aid bill for school construction may be enacted, it is not realistic to take an overly optimistic view that there will be a great increase in direct federal aid. In the past, both major political party platforms have contained statements favoring federal aid to education. Various legislative committees have spent long hours discussing federal aid, but Congress has yet to enact any general aid bills nor is it likely to do so in this session.

Perhaps the greatest factor adversely influencing the passage of such an act is the integration issue. In all probability, any federal aid bill would include a stipulation denying aid to states maintaining segregated public schools. Such a stipulation would undoubtedly insure the defeat of the bill, and, conversely, if such a stipulation were to be omitted, the bill would likely be defeated. But even without the segregation issue, it is unlikely that a general federal aid bill could be passed. This is partially attributed to the widely held belief that federal aid would eventually lead to federal control of public education. In addition, there seems to be a lack of awareness of the acute fiscal crisis facing public education coupled with the feel-

CHARLES W. THOMAS is assistant to the Dean of Thiel College, Greenville, Pennsylvania. His first article on this topic appeared in the February, 1961, *Junior College Journal*.

ing that the individual state can and will be able to do an adequate job of financing the schools.

Carpenter and Capps¹ state that from past experience there is no reason to believe that taking federal aid need mean that local authorities will be required to give up control of the schools. President Eisenhower² has stated that the educational task of this country is basically a state and local responsibility. However, he indicated there are likely to be some underlying problems which the state and local communities, acting independently, cannot solve and where federal aid will be needed. He stressed that the federal role should be merely to facilitate education and never to control it. The President's Committee on Education Beyond the High School³ maintains that the federal government should provide broad national leadership, should collect and provide useful data and services, and should provide certain other needed assistance. It should do these things only by methods which strengthen state and local efforts and responsibilities. Direct financial assistance should be given only through programs which are periodically reviewed and which are terminated when no longer clearly justified. This Committee cautions that the federal government should studiously avoid programs which carry the

threat of control or of other adverse effects upon educational institutions.

Several federal enactments, such as the "G.I. Bill of Rights" of World War II and the Korean War, the Veterans' Rehabilitation Acts, the College Housing Program, and, more recently, the National Defense Education Act, have given the public community college a degree of financial assistance from the federal government without any problem of federal control. However, it is unlikely that Congress will enact any bills that will channel money into higher education on a massive scale. Rather, the likelihood is for legislation to assist institutions in overcoming specific problems; assist in strengthening instructional and research programs; and encourage wider public support for higher education.⁴ The immediate outlook for federal aid is still not too bright. The Committee for Economic Development⁵ has stated:

Education expenditures (by the Federal government) will rise for several years due to new programs to promote science and student loans. Thereafter, the program is likely to extend, with some scholarship program possibly being enacted. While a much larger program for Federal aid to education is not impossible, the failure to enact it over the past ten years, coupled with the continued obstacle of the integration issue, makes such a program unlikely within the next decade.

While direct federal aid may not be realized, the federal government will still be able to aid higher education. Among

¹ W. W. Carpenter and A. C. Capps, "The Case for Federal Support," *School Executive*, Vol. 75, No. 4, pp. 43-46.

² Dwight D. Eisenhower, "President Eisenhower's Message on Education," *Higher Education*, Vol. 13, No. 6.

³ President's Committee on Education Beyond the High School, *Second Report to the President*, U.S. Government Printing Office, Washington, 1957.

⁴ Charles M. Radcliffe, "Pacemakers, California's Community Colleges," *California Journal of Secondary Education*, Vol. 31, No. 226, pp. 59-64.

⁵ Committee for Economic Development, *Paying for Better Public Schools*, New York, 1959.

the recommendations of the Josephs Committee⁶ with respect to possible types of federal aid to higher education are: that long-term federal loans at low interest rates be made available to institutions of higher education for the construction of income producing facilities (such as dining halls, residence halls, etc.); that federal grants-in-aid on a matching basis be made available to assist as many types of non-profit higher educational institutions as possible to construct non-income producing facilities (such as classrooms, libraries, administration buildings, etc.); that appropriate benefits of the slum clearance provisions of the National Housing Act be made available to urban educational institutions seeking to acquire land needed for building expansion; that the federal government revenue laws be revised in ways which will more strongly encourage contributions from more individuals to educational institutions. The public community college may well benefit if some of the proposals of this Committee are put into effect.

From the readings on federal aid to education, it appears that there is a general agreement that higher education will need more financial support than the state and local areas can be expected to supply. Although it is recognized that the federal government may well be in the best position to supply needed revenue for public higher education and that such support would be more likely to equalize such educational opportunities between states, there appears to be a great reluctance to accept the idea of direct federal aid. How-

ever, in time this reluctance must and will be overcome, and Congress will act to provide more federal aid for all phases of public education. The public community college movement should receive a great emphasis when this occurs. Meanwhile, the public community college must make the most of available indirect federal aid and continue to develop other sources of revenue.

CORPORATION AID AS A SOURCE OF REVENUE

Millett⁷ thinks that the outstanding development in higher education finance has been the great expansion of corporation support of higher education. He attributes this to improved solicitation devices on the part of colleges and universities. He stated further that another important development has been the increased interest on the part of foundations in providing capital funds to colleges and universities.

Leaders in communities throughout the nation are becoming increasingly aware that the shortages of persons having specialized skills can be overcome by establishing community colleges.⁸ Business and industry have a direct interest in the education and upgrading of employees and future employees.⁹ Higher education furnishes new knowledge, assures a continu-

⁶ Richard G. Axt, "The Josephs Report—Toward a Federal Policy in Higher Education," *The Educational Record*, Vol. 38, No. 4, pp. 291-299.

⁷ John D. Millett, "Recent Developments in Financing Higher Education," *Annals of The American Academy of Political and Social Science*, Vol. 301, *Higher Education Under Stress*, The Academy, Philadelphia, Sept., 1955.

⁸ Asa A. Knowles, "Emerging Features of Tomorrow's Higher Education," *Educational Record*, Vol. 38, No. 4, pp. 329-339.

⁹ Clyde E. Blocker, "Philanthropy and the Public Community College," *Junior College Journal*, Vol. 30, No. 1, pp. 6-7.

ing supply of educated manpower, and provides an economic, social and political climate in which business can make progress.¹⁰ The public community college can offer educational flexibility and breadth of program so that special interest groups can find some aspect of the program which they can support.¹¹ An investment in a public community college on the part of a business concern is one which should yield a good return.

Patrick¹² lists endowments, capital grants, equipment and materials; matching plans for alumni giving; establishing of scholarship funds (with grants being made by the college); assigned fellowships; research grants for graduate work; library assistance; work-teach projects; use of retired personnel as teachers; unrestricted grants; giving grants to various groups for educational purposes as the major types of aid that business and industry can give to higher education. Also, the individual public community college may be able to establish cooperative apprenticeship programs with various labor unions in which the union will assist in meeting the costs of the program.

The evidence seems to indicate that, in general, local business and industry may well be willing to lend financial support to the public community college. It is the task of the administration and members of the board of control of these colleges to solicit this source of revenue more diligently than presently. The colleges must have the ability to "sell" their program to business and industry. There must be a

willingness to cooperate with these firms in establishing programs that will train people for positions in local firms. If this is done, the chances of obtaining financial support from corporation sources is greatly enhanced.

ECONOMIES OF MANAGEMENT AS A SOURCE OF REVENUE

Although economic operation of a public community college is not, in itself, a source of revenue, savings from such operation can make money available for the development of more and better programs. Both Wells¹³ and Paget¹⁴ advance the theory that public supported institutions of higher education can, in all probability, obtain more for the monies spent by making improvements in management. Harris¹⁵ estimates that by 1970 higher education could economize to the extent that approximately 16 per cent of the total costs of higher education could be paid for by the monies saved through better management. As Chamberlain¹⁶ points out, if

¹³ Harry L. Wells, "Standards of Service in University Management," *Annals of The American Academy of Political and Social Science*, Vol. 301, *Higher Education Under Stress*, The Academy, Philadelphia, Sept., 1955.

¹⁴ Richard M. Paget, "Operating Costs of University Management," *Annals of the American Academy of Political and Social Science*, Vol. 301, *Higher Education Under Stress*, The Academy, Philadelphia, Sept., 1955.

¹⁵ Seymour E. Harris, "Charging the Student Tuition on the Basis of Costs," *Educational Record*, Vol. 40, No. 1, pp. 24-28.

¹⁶ Leo M. Chamberlain, "Financing Public Colleges," Addresses on Current Issues in Higher Education, 1951, Department of Higher Education, National Education Association of the United States, Washington, 1951.

¹⁰ Kenneth G. Patrick, "Types of Aid to Education," *Management Record*, Vol. 21, No. 5, pp. 178-179.

¹¹ Blocker, *op. cit.*

¹² Patrick, *op. cit.*

publicly supported institutions of higher learning are to offer better educational programs in the future than they have in the past, there would seem to be only two possible approaches: more funds must be forthcoming and higher education must spend the funds provided more wisely so that more and better education is obtained for each dollar invested.

It behooves the public community college to examine ways continuously to insure maximum utilization of its facilities, space, teaching personnel, and fiscal resources. All programs should be subject to careful and systematic scrutinization by faculty committees, administration, and boards of control for content, educational value, and economic feasibility. Wasteful duplication must be avoided, and only programs which can be clearly justified should be included in the curriculum. While this approach may be difficult for some academicians to accept, the public

community college must adopt a more businesslike approach to financial matters to insure receiving the greatest value for expenditures made.

SUMMARY

It seems clear that the public community college must develop all possible revenue sources to the fullest extent if it is to operate on a sound fiscal basis. Through the total revenue derived from local taxation, state aid, student tuition, some form of federal aid, corporation support, and economies of management, the public community college movement will be able to continue its expansion. Given adequate financing the public community college will establish itself as an integral part of the public education system and will be able to make a significant contribution toward meeting the increasing demand for educational opportunities beyond the high school.

Counseling and Advising in the New Junior College*

MELVENE DRAHEIM HARDEE

THE OPENING of a new college may be said to be like the "first night" of a new play. The members of both enterprises will likely perform with a touch of genius. There are no ghosts of past performances to haunt the cast. The success of the venture is attributable to the new script, the new crew, the new settings, and the new cast—so also are the mistakes! Any performance coming thereafter will follow a pattern, a precedent set by the opening event.

All this is true if the members of the enterprise—in this instance, the faculty of the college—experience what Rogers terms "psychological safety" and "psychological freedom" which permit of high level creativity. Psychological safety is felt when the potentialities of the individual are recognized and unconditional faith is accorded; psychological freedom prevails when a climate of external evaluation is absent. Reaction is permitted but external evaluation is ruled out.¹

With the belief that members of the new college have both psychological safety and freedom in constructing a program of education with an emphasis on advising and counseling, attention is

turned first to the students who will soon be visible, not at over-the-footlights distance, but at the adviser's elbow. The remarks about students will be in the nature of (1) their expectation of college, and (2) the possibility of fulfilling these expectations through advisement and counseling. There will follow (3) some consideration of findings from surveys of advisement and counseling in other colleges, and (4) a reflection on the possibilities for insuring continuing effectiveness of the counseling program.

1. THE STUDENT'S EXPECTATION OF COLLEGE

A colleague and I were recently concluding a day of visitation in a Florida junior college and were preparing for a flight to our campus. The airlines employee who was examining our tickets overheard our conversation about the day's activities and asked if we were associated with the local college. We explained our mission and then, sensing that he had something to tell us, we asked if he had been connected with the junior college. Pridefully he answered, "No, but I'm

* An address made to the faculty of the new Broward County Junior College, Ft. Lauderdale, Florida, August 24, 1960.

¹ Carl R. Rogers, "Toward a Theory of Creativity," in *Creativity and Its Cultivation* (New York: Harper and Bros., 1959), pp. 78-79.

about to make a landing there. I've been going on a wing and a prayer for nearly six years, and now I'm a coming in. But I tell you, it's got to be good, that junior college, because it's my best, biggest hope."

The hope of this young man in his mid-twenties is well worth finding out about. What are his expectations of the curriculum, the teachers and their teaching methods, the administrators and their administration, the system of advising, the plan for counseling? What is his over-all image of the college? Equally important, what will be the reality of college? What will the student actually find in the curriculum, the teaching, the advising which will personalize the educational process for him? How closely will the *ideal* approximate the *real*? Will the spirit of the learner find a home in the climate of learning in the junior college of his choice? What is the spirit of this particular learner, this man in his mid-twenties who will obviously be older than the majority of freshmen, who may likely have home and family responsibilities, who may continue to work part-time, who may (or may not) have clearly defined goals for aviation mechanics, business administration, engineering, electronics or another major? What will happen to his spirit if the student finds he cannot keep up with the assigned reading in history, the assignments in mathematics, English? What dispiritedness will he exhibit when he receives the mid-semester warning, a *D* in these subjects? What loss of motivation will occur when he concedes that the low marks in mathematics will not permit him to continue in his goal of engineering? These are a few of the "whats" that arise

in any anticipation of the first-time college experience.

What are the needs of students, common to all but particularized in each student? The *intellectual* needs of students assume top priority as a concern of educators, with knowledge, understanding, and critical judgment essential for subject mastery. That the *vocational* needs have little less than top priority is obvious. Students affirm that "preparation for an occupation" is a major reason for enrollment in college. The *affective* needs, those concerned with the individual's values, philosophy, and self-actualization, are understandably related to the intellectual and vocational needs. *Social* needs, eventuating in leadership roles, in group and civic participation, deserve attention. The *physical* needs, concerned with health and recreation, are requisite for the individual's self-fulfillment. *Economic* needs which strongly affect college-going have recently been more fully acknowledged.

College catalogs and descriptive brochures, mountain-high, declare the institution's good intentions for meeting all the needs of all the students. This contention in print deserves to be modified in the interests of truth. While the new college may hope eventually to attend to "all the needs of all the students," it is probably correct to assume that some needs of students will be accounted for ahead of and more fully than some others. The new college will seek early to define those needs which are to be given earliest attention and fullest implementation.

Each college student approaches his initial year with a particular pattern of needs and expectations. Barring loss of spirit, unforeseen misfortune, and unanticipated "other" opportunities, the stu-

dent will, after two years, obtain his A.A. or A.S. degree. Thereafter, enrolled in a senior college or at work in a job, he has time to think in retrospect about the junior college experience.

At Florida State University last spring there was organized a panel of students, all of whom were transfers from junior colleges in the state, to discuss with visiting personnel workers of surrounding junior colleges their transition to senior college. The six members of the panel, four men students and two women, focused their remarks upon (1) their expectation of the senior college, (2) what they found to be true of the senior college, and (3) the advice they would offer to junior college student personnel workers for improving anticipation between the two institutions. These categories appeared in the discussion: (1) *Status*: the junior college experience appeared not to be an extension of high school in the sense that it was a 13th year "tacked on" to what had gone before. Even though these students were living at home, continuing with the same community activities, the work of the junior college was "levelled up," with class and extra-class experiences noticeably different. (2) *Faculty Approachability*: the president, dean, the teaching faculty members, and the student personnel workers were accessible and willing to talk with students on any problem. Even in a junior college numbering more than a thousand students, this judgment pertained. (3) *Articulation*: the transition of students from junior to senior college was more easily effected than they had anticipated. It was the student's opinion that course sequences had been planned through the cooperative work of advisers and administrators in both junior and

senior college. None of the students reporting (and only one of their friends) had been delayed by having inadvertently repeated a course, by taking a course which "did not count," or by neglecting to take a given prerequisite. (4) *Extra-class Participation*: the extra-class activities in which students engaged during the junior college years were so personally satisfying and so comprehensive that continuation of these activities at the senior college level was thought to be out of the question! The senior college activities were adjudged to be duplicative of those afforded them in junior college, adding little, if anything, to the over-all educational experience.

Some statements selected from the transcript of the proceedings were these:

1. "My enrollment in a senior college had a moral involvement. I felt that I had to prove my junior college had prepared me."
2. "I believe that I am as well prepared for my last two years of college by having been to junior college as all those people who came here for their first two years. I think, if anything, I might be just a jump ahead of them . . ."
3. "At junior college, I learned how to think and compare and contrast—to actually give my own ideas and not just facts."
4. "The reason why I was active in the junior college extracurricular program was that I could see much valuable educational experience coming from having to make decisions in student activities and having the college administrators help me make decisions."
5. "I think that the counseling program in the junior college is one of the strongest phases. I don't mean that the counseling can't be improved because it surely can. But the fact that my adviser at the junior college knew as much as she did about the courses I would have to take at the university really surprised me."

The foregoing consideration has been directed to the *transfer* student rather than the *terminal* student. In a reasonably short time, the number of students from Broward County Junior College who actually transfer to a senior college will be evident. The manner in which curriculum and counseling can be particularized for these students will then be a primary consideration. A follow-up similar to the one cited for transfer students deserves to be made with the terminal student. How good was the preparation for the work? In knowledge, skill, and attitude, how well prepared was the new secretary, salesman, plant operator, foreman, electrician, book-keeper, or homemaker? When faculty members of the new college hypothesize a readiness on the part of the graduate for transfer to senior college or for job placement, testing of the hypothesis is due with successive graduation classes. Students are usually ready and able to reflect upon their reasons for enrolling in college, upon their competence for continuing their formal education or beginning their first full-time remunerative work.

2. THE FULFILLMENT OF EXPECTATIONS THROUGH ADVISEMENT-COUNSELING

One of the comments of the transfer students cited in the foregoing was, "The President, dean, and teachers, including the student personnel workers, are accessible and willing to talk with students on any problem or concern." This is commendable, for the "open door office" is surely a feature of "the open door college." Writing of the student's reaction to teaching, Perry affirms . . . "the greatest source of anxiety among college students is their sense of isolation from their teachers . . . in the sense that the only communica-

cation one has with the professor and the institution at large resides in one's academic record. As one student said, 'I feel like a *B* minus walking around on two legs.'²

There is little excuse for a student's feeling so in a community junior college. A new college can take steps to prevent student anxieties of this kind. It can encourage the talking out of problems as a part of good teaching and efficient advising and counseling.³

Good teaching in itself will help to reduce the personal isolation of students and decrease their undue anxieties. Faculty advising, in addition to good teaching, will attend to other important student needs. Professional counselors, offering leadership to the advisers, serving as a referral resource for both teachers and administrators, providing that special understanding of human behavior complete the triad: (1) good teaching, (2) efficient faculty advising, (3) competent professional counseling. Any one without the other two, any two without the third, leaves a void in the program of the new college.

If it is the expectation of the new stu-

² William B. Perry, "Conflicts in the Learning Process—The Student's Response to Teaching," in B. B. Cronkhite, *A Handbook for College Teachers* (Cambridge: Harvard University Press, 1950), p. 34.

³ Differentiation is made in the use of the terms, with "counselor" intended to designate the full-time professionally trained individual, and "adviser," the *faculty member* who is appointed to assist the student in course selection, evaluation of progress in coursework, and referral to specialized sources of assistance. See M. D. Hardee, *The Faculty in College Counseling*, McGraw-Hill, 1959, for detailed treatment of this concept.

dent that he be allowed to "talk on any problem" with a faculty member, what are the specifics of this talk-out? A few of the possibilities would include the following:

1. Long-range occupational or vocational plans; educational plans
2. Immediate occupational or educational plans
3. Selection of a program of study (two years, one year, one semester)
4. Evaluation of abilities, aptitudes, skills, personality traits
5. Evaluation of progress in particular coursework
6. Assistance in how-to-study (general or for a specific course)
7. Equalization of course load (in view of part-time work, illness, commuting, family responsibilities)
8. Remedial or tutorial assistance (writing, reading, speaking, listening)
9. Financial aid (part-time work, load, scholarship—immediate or future)
10. Personal adjustment (in relation to a teacher, member of the family, employer, student, other)
11. Health (physical, emotional—preventive of illness or remedial)
12. Extra-class activities (student government, clubs, athletics, or other)
13. Placement (part-time, summer-time, after graduation)
14. Religious or ethical (personal values, life goals, philosophy)

These are general categories which serve to cover a multiplicity of specific questions. Only the categories can be generalized, for each question has special reference for the student who raises it.

"Talking out" on questions of this kind proceeds most efficiently and beneficially within the purview of a program of comprehensive counseling. In such a program, particular responsibilities are assigned to particular personnel with a form and

structure of program visible and random and incidental activity minimized.

These characteristics or principles of program comprehensiveness are of importance to the new junior college in its opening year:

1. *A comprehensive counseling program will be based on the belief in the worth of the individual student.* This is not to say that the individual will be viewed apart from society, encapsulated or isolated. Rather, it suggests that the techniques and methods adopted by faculty advisers and professional counselors will be those which take into account the unique aspects of the individual—his personal worth, dignity, integrity, mode and manner of expression, specific ways of learning, his total behavior in the college community.
2. *A comprehensive counseling program will provide for the diverse needs of students.* There will be an accounting for the various forces that shape student motives: health services (preventive and remedial, physical and emotional); personal counseling (designed to effect greater personal and social efficiency); financial aid (involving loans, part-time and full-time work); religious and spiritual advisement; vocational counseling (choice of a life work); educational advisement (choice of courses in a proper sequence); marital and family counseling; remedial assistance (in speech, reading, hearing and writing) and similar need-fulfilling activities.
3. *A comprehensive counseling program will provide for the active and cooperative participation of administrators, faculty advisers, teachers, counselors, and special clinicians.* Outmoded is the view that one unit or office has the sole responsibility for the ongoing welfare of students. While it

is true that certain kinds of assistance may best be provided by individuals trained and experienced in that specialty, all persons engaged in the educational process must be alert to the special problems of students.

4. *The comprehensive counseling program will make provision for the accessibility of the various services.* Students will gravitate to the service which is near at hand or in close proximity to their place of work, study, or recreation. The physical accessibility of advising and counseling is no more important than the psychological accessibility. Courtesy, warmth and receptiveness of the staff are of paramount concern.

5. *The comprehensive counseling program will make provision for the coordination of the efforts of various persons.*

With many persons figuring in advising-counseling, it is highly important for administrators, faculty advisers, counselors, and teachers to be in communication with one another in order to unify their efforts. Coordination is effected through a system which promotes the understanding of the counseling process, enables participants to give and get information, review issues, and assess the result of their cooperative action.

6. *The comprehensive counseling program will make provision for the continuity of the student's counseling with special reference to cooperation with the home and the high school.* Among the potent forces which shape student motives are those which the student has experienced prior to college. Just as ease of movement between junior college and senior institution is conceived to be important, so also is the need for articu-

lation of counseling between the high school and the junior college.

7. *The comprehensive counseling program will make provision for the continuing evaluation of the counseling program in all its aspects.* A study of the effectiveness of the service is merited to adjudge the extent to which it is "reaching" students, contributing to the changed behavior of students and supplementing other aspects of the education program. Of particular value is the case study consideration of students. Progress of a student can be charted and described for the detailed study of faculty members in their in-service training session. Other means of evaluating the program of advising and counseling need to be devised and used by professional personnel charged with responsibility for the program.

3. SURVEYS OF COUNSELING IN PRESENT-DAY COLLEGES

An institution's own study of the advising-counseling process can be compared at intervals with results of studies carried out in other institutions. A modest study of programs of advising and counseling in junior colleges of the country was initiated by the Office of Coordinator of Counseling in 1958. Two progress reports were prepared, with summarization made of some 225 questionnaires. Some points of summary are these: Every respondent indicated that some type of "counseling" service was provided. Academic counseling appears to be the area of greatest participation by junior college faculty members. Many institutions report holding seminars for the in-service training of faculty advisers. Articulation with four-year institutions is effected in a majority of instances through meetings of the junior

and senior college personnel. Articulation with secondary schools appears to be less well understood or implemented. Articulation with the home seems to be a specialty.⁴

More comprehensive is the study of Medsker emanating from the Center for the Study of Higher Education, University of California, Berkeley. He notes that the cooperating institutions, 73 in number, tend to classify all formal advisement as a part of the counseling program, although there is a notable difference between mere program advising and helping a student appraise his ability in a given occupation. He cites the rise of preadmissions counseling required of each entering freshman. The student reports to the college during the summer for an interview with a staff member regarding his college plans and the selection of a fall program of courses. In a summary table, Medsker delineates the participation of administrators, teachers, and professional counselors in post-admission counseling.⁵

Particularly pertinent is that section of the writing which details the weakness in programs of counseling in the cooperating junior colleges. Medsker comments:

In many colleges the view prevailed that when a student could be assisted in arranging a program of classes which met his personal desires, and also met requirements of transfer to a senior college, the major task of counseling had been fulfilled.⁶

⁴ See mimeographed releases #1 and #2 of "A Summary of a Survey of Personnel Programs in Selected Junior Colleges" by O. Bert Powell, Florida State University, Tallahassee, with collection of data by M. D. Hardee.

⁵ Leland L. Medsker, *The Junior College: Progress and Prospect* (New York: McGraw-Hill Book Co., 1960), pp. 150-153.

⁶ *Op. cit.*, p. 163.

That there is more to be done in the way of helping a student to make certain of his occupational choice, to make a wise decision about a senior college, to analyze and appraise an academic record, and to solve a persisting personal problem is obvious. That these concerns require the assistance of personnel trained and experienced in personality assessment, test interpretation, group and individual counseling, and the behavioral sciences is likely obvious. That the several groups—administrators, teachers, and counselors—need to continue their study of "the nature and nurture" of the college student in contemporary higher education is urgent.

4. INFUSING THE NEW PROGRAM WITH LIFETIME VITALITY

It is relatively easy to be enthusiastic about the first year's enterprise. The continuation of enthusiasm and effort must be envisioned early and encouraged thereafter. In successive years, there may be a tendency for some who participate in advising to think that they have all possible to learn about the student—that no new learnings are to be had. Similarly, as enrollments mount and as responsibilities for curriculum planning, administrative detail, committee and other kinds of integrative planning double and redouble, there is the possibility that the individual student will become a faceless, voiceless entity in an "open door college" that is drafty, cold, and impersonal.

Can a lifetime vitality in the counseling program be infused at the moment of opening of Broward County Junior College? There is, in the parlance of the theatre, an expression called "the illusion of the first time." It is easily understood: the able actor attempts to play the old, oft-

played role as if it were the first time acting. With the artist, the playing becomes spontaneous, vital, real—in contrast to deadly, monotonous, and disspirited. This is possible because the actor has learned the role, has mastered the techniques, and has maintained "the spirit" of his art through a "method" of creation and re-creation.

Similarly, faculties in new junior colleges may approach the first-year advising

and counseling with students. Without doubt, high level accomplishment can be achieved in succeeding years if the staff charts its first year well. The aim is to record and review so carefully the successes, trials, errors, that succeeding years each individual will approach his role with deeper understanding, greater personal expectation and increased competency—for having performed so well initially.

The Music Appreciation Dilemma

HAROLD P. HILL

TEACHING "appreciation" is one of the most troublesome functions of general education, and nowhere do the troubles manifest themselves so obviously as in "music appreciation." Unfortunately, much testimony indicates that music courses designed to introduce students to the pleasures of great music do well if they can keep the student quietly apathetic rather than openly antagonistic. An examination of the problems peculiar to the teaching of music appreciation might indicate where traditional offerings in this field have gone astray.

Like the other symbolic arts, music creates its own universe of experience; it has its own inner logic and forms of expression; it sets up its own time sequences and tonal demands. But unlike art and literature, music need not rely upon any symbolic representation which is directly related to the everyday world. Historically, at least, art is a symbolic system that reproduces or interprets the physical forms of the everyday world, and literature (even poetry) is composed of words which may be used in everyday experience. But the tempos and tones of music, once they had progressed from their initial, imitative, natural stages, have developed further their own pattern of expression and have divorced themselves from everyday life.

After its initial mutterings and murmurings, music became the one universe of symbolic expression least connected with representative forms and words. In the teaching of music appreciation, this fact cannot be overlooked. The first teaching objective is always that of moving the student into the unique demands of musical expression. This jump, from the student's everyday world to the universe of music, is an ambitious one; yet, many instructors not only attempt this difficult leap, but simultaneously try to remove the student several centuries into the cultural past. That is, the customary way to organize music appreciation courses has been to structure them chronologically so as to start at the beginnings of musical history. This requires the student to make two abrupt leaps: one into the unique universe of music, and one backwards into the 12th or 13th century.

The *two* leaps seem an unnecessary burden on both instructor and student if one is able to discard the historical approach. And why not? The history of music is, after all, "history," factual data which can be acquired by the student after he is convinced of musical pleasures. A more gradual approach would seem warranted, an approach with as much logic as the chronological approach but with fewer demands.

It has been stated that music need not be representational, but, of course, it can be. The 19th century romantics and some

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modern composers have all but exhausted its representational properties through tone poems and program music. It would seem logical to begin a music appreciation course at the point where the student's world and the musical universe converge—to introduce the student to the language of music through compositions which are representational and at the same time great music, such as Respighi's *Pines of Rome* or Smetana's *Ma Vlast*. At the same time that the student is intrigued by what the music represents, he will be experiencing the more universal aspects of musical expression.

The course may then back off from the representational forms and concern itself with music's unique potentials. Here, again, it would be easier to introduce the student to musical statements closest to his own world. The romantic spirit is still prevalent in this culture (no matter what is done to discredit it), and the young student especially will find the melancholy voice of Tchaikovsky or Rachmaninoff more communicative than the baroque exaltations of Bach or Handel. Once involved in the dramatic world of the romantics, the student will not feel jarred if the instructor chooses to bridge the gap to classicism through Beethoven or to modernism through Brahms or Sibelius. Radiating music appreciation outward to the worlds of Bach (or pre-Bach) at one end and Bartok at the other will gradually introduce the student to the gamut of musical experience. It is contended that once the student senses the potential of musical expression through music which is most familiar to him, expansion of his sensitivity will be facilitated.

The question arises, however, as to how much technical jargon must accompany

the student's exposure to music. As appreciation courses have failed because they have relied too heavily on historical structure; they have failed also when they have confused technique with appreciation. General education courses are not designed primarily for the music major, and hence the instructor is not committed to the teaching of professional musical skills.

One must deal, of course, with the vocabulary of music, as the language of any symbolic system creates its unique effect. It is possible, nonetheless, to note the quality of musical vocabulary without doing a quantitative analysis. The dynamics of music are created by the interrelationships amongst the basic elements of music, but these elements may be known, and better felt, by their individual personalities than by their mathematical relationships. Hence, demonstrations can be given to exemplify the extroverted-introverted personalities respectively of major and minor scales, of major, minor (diminished, augmented) intervals and chords. Such qualities as happiness, pomp, regality, and mobility can be traced to changes in tempo, rhythm, and syncopation, or, conversely, these changes can denote gloom, chagrin, humility, or immobility. In a like manner, melodies and themes can be said to derive their personalities from the rounded, rambling phrase, the abrupt, staccato phrase, the blocked, wooden phrase, etc. All this can be demonstrated without the incumbrance of technical terms, and can be expanded by attending to the specific personalities of the music which is scheduled to be played.

In the entire qualitative procedure, however, there appears a lack of concern

for the more formal aspects of music (sonata form, rondo, fugue, etc.). Perhaps this is the weakness of the system; if so, it is believed to be compensated for by the fact that the student is attending to *what* is musically said rather than *how* it has been technically conceived. As historical data may be learned after the student is immersed in musical experience, so, too, the drier, but necessary, formal concerns may be approached once the student's enthusiasm is firmly established. And he will not come totally uninitiated to the study of forms—some basic groundwork will have been laid when the student understands the romantic spirit as an emphasis of feeling over form, when he studies the musical revolution of Beethoven, when he hears the comparative

formal voice of classicism, or when he is introduced to the neo-classic composers of the 20th century. If the qualitative aspects of form have been felt, the quantitative analysis should be less difficult to learn.

With the substitutions of qualitative for quantitative analysis and the familiar for the historical approach, the problems of the music appreciation dilemma will not be dissolved. Problems of scholastic discipline, over-generalization, and especially of testing and evaluating will still have to be met. It is believed, however, that these suggested substitutions will enhance the primary general education objective of music courses—that of appreciation—and that once this is done, the student response itself will generate the answers to subsequent problems.

Teaching Descriptive Geometry With Colored Transparencies

CLAYTON W. CHANCE

DESCRIPTIVE GEOMETRY courses are frequently taught by the lecture-demonstration method together with supervised laboratory work. Drawings on the chalkboard should be skillfully constructed, visible to all students and competently explained, but objections to this method are that: (1) the teacher has his back to the class; (2) figures on the board are too small to be seen by all students; (3) time required for making drawings limits the amount of material covered; (4) most teachers use white chalk, thereby only one color is viewed.

A 15-month research study conducted by the writer proposed that approximately 200 drawings with some 800 accompanying overlays required in the lectures for one semester in the descriptive geometry course could be made in a professional manner on colored transparencies and projected onto a screen by means of an overhead projector. A large image at a short screen distance in a semi-darkened room permits use of the projector in front of the class and enables the instructor to face, and speak directly to, those in attendance, which leads to more effective

teaching and handling of larger groups of students in the lecture demonstration.

When placed at the disposal of an "average" teacher, this method of presenting lecture-demonstrations in descriptive geometry will significantly increase the effectiveness of his classroom lectures and chalkboard demonstrations. The author teaches this course to second semester freshman engineering students, and lectures contain numerous problems illustrated on the chalkboard and utilizing basic fundamentals. The effectiveness of chalkboard demonstrations is materially affected by the skill of a teacher in making them. Therefore, by adopting the overhead projector-transparency method of teaching, an "average to good" instructor will be better able to become an "excellent" teacher in presenting subject matter in a more interesting, better organized and understandable manner.

OBJECTIVES

Solutions to the following questions were answered at the conclusion of this study:

- (1) Can the lecture-demonstration period be reduced so as to enable the students to experience longer supervised laboratory periods?
- (2) Will students' knowledge of the fundamentals involved in problem solutions be increased?
- (3) Will there be more time during the lecture for the students to ask additional questions?

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- (4) Will the faculty prefer to engage in transparency demonstrations as opposed to the time proven chalkboard drawings?
- (5) After comparing students in four controlled classes, will there be a noticeable improvement in the final grades of the two transparency-taught classes versus the two chalkboard-taught classes?

PROCEDURES

Approximately 1,000 masters were drawn, inked and lettered in a professional manner, and utilized in developing 200 colored transparencies and 800 overlays. The project director used these one semester with two additional instructors viewing lecture demonstrations. The following semester the two instructors (A and B) taught four controlled classes comprised of 104 students, two classes with the use of the overhead projector medium and two by the chalkboard method. These classes were organized at registration on a random basis as equally as possible with the teaching method being the only known variable. Results on a student questionnaire and Form A of the Space Relations Differential Aptitude Test were used by the instructors and the project director in setting up a vertical rating scale with the rank of each student in the two sections of the combined controlled classes. After completion of this ranking from top to bottom, a distribution into the "transparency" or "blackboard" class was accomplished by purely random casting of the lot. Daily information on these four classes was tabulated covering some 10,700 daily drawing grades, 500 quiz grades, 100 final exam grades and 100 final grade averages.

CONCLUSIONS

Originally it was the responsibility of the project director to set forth answers

to the objectives of this research study. Because it was felt that answers would have a stronger significant value if the opinions of the two instructors were taken into account, they were consulted in the organization of the following answers to the original objectives and agreed in essence with the wording.

1. *Can the lecture-demonstration period be reduced so as to enable the students to experience longer supervised laboratory periods? Yes.*

If the amount of lecture material being viewed by students could be kept equal for comparison purposes, the transparency medium would definitely provide a shorter lecture period. The project director utilized a stop watch while visiting several lectures of each medium. This revealed an average of five minutes per lecture longer duration for the blackboard over the transparency lecture. The additional time spent in lecturing would have been even longer if the instructors had covered an equal amount of demonstration material on the blackboard that was already prepared on the colored transparencies. Also, it was felt that too much problem construction detail was pointed out by the instructors when using the transparencies. After instructors become more familiar with the transparencies, overall lecture time in the transparency class can be reduced, hence allowing even more time for a supervised laboratory period. An average approximated figure of 15 minutes per 60-minute lecture could be saved by the transparency medium over a comparable blackboard lecture which would amount to a 25 per cent saving of the students' time in a descriptive geometry lecture.

2. *Will students' knowledge of the funda-*

mentals involved in problem solutions be increased? Yes.

This objective with reference to the students' daily work can probably be answered best by comparing class averages over the daily drawing grades and five quiz grades which were spaced out over a semester of 17 weeks. The transparency group's average was 83.1 per cent compared to the blackboard group's average of 81.2 per cent, a difference of 1.9 in favor of the transparency medium. In comparing group averages for the five quiz grade totals, the transparency group averaged 78.3 per cent to a 75.0 per cent for the blackboard, a difference of 3.3 per cent in favor of the transparency group. Although neither of these differences is large enough to be statistically significant, both of them are in the same direction—i.e., in favor of the transparency group.

In comparing group averages for the final examination grade, the transparency group averaged 76.9 per cent in contrast to a 71.2 per cent for the blackboard group. This figures a 5.7 per cent differential in favor of the transparency group. In comparing group averages for the final course grade, again the transparency group led the blackboard group, 79.3 per cent to 74.9 per cent, which supplied an average differential figure of 4.4 per cent or practically a one-half grade point betterment.

Both of these differences were statistically significant at the .05 level of confidence. The conclusion drawn from these results was that an answer of "yes" could be given to the question originally used in this objective.

3. Will there be more time during the lecture for the students to ask additional questions? Yes.

From answers supplied for the number

one objective, it has been ascertained that there is more time available if the students wish to ask additional questions and indulge in class discussion for the purpose of a better understanding of problem solutions. A random selection of various lectures along with a tabulation of total number of questions asked in each of the two groups reveals a surprising fact: Of the total number of questions asked in these lectures, 70 per cent were in the transparency group. One explanation the author has for this is that the transparency medium provides an easier way for an instructor to teach this subject. Therefore, psychologically students feel that problem solutions are easier to understand; hence their attentiveness is greater and they realize sooner when a question comes to mind.

4. Shall the faculty prefer to engage in transparency demonstrations in contrast to the time proven chalkboard drawings? Yes.

Before any instructor can express an opinion on this objective, he must actually experience for himself this newer method of teaching by utilizing an overhead projector and colored transparencies; observing another instructor using this medium is not convincing. Because of the contrasting differences involved, an instructor must teach more than one class before he can feel at ease with the transparency medium approach. This project director used the transparency medium both semesters of the 1959-60 academic year and found several techniques which could be used after gaining familiarity with the projector, semi-darkened room, transparencies and projection screen. Both instructors A and B enjoyed the experience of using the transparency medium. After observing the final results of this research

project and when additions to the transparency field are completed, both instructors will join with the project director in an affirmative vote in favor of the transparency method of teaching engineering descriptive geometry. One additional factor in favor of the transparency medium approach to teaching was voiced by almost all faculty viewing this research project—that it allowed for a more professional appearance to lecture demonstrations.

5. *After comparing students in four controlled classes, will there be a noticeable improvement in the final grades of the two transparency-taught classes versus the two chalkboard-taught classes? Yes.*

As indicated earlier in this study, students who participated in this project were ranked by the instructors and project director on a vertical rating scale and distributed into four equal sections. These were then cast into a transparency or blackboard group by the toss of a coin. A later review of the Space Relations Pre-Test scores indicated that the four classes started out at the beginning of the semester with as even a distribution as could be expected. All the known variables were taken into account, namely, (a) difference in instructors, (b) difference in scheduling time of classes, and (c) difference in teaching methods. At the conclusion of the course, and after final grades were tabulated, tables were compiled which showed comparisons of the two teaching methods in each of the grade categories.

Table 1 supplies a comparison between the two media by class divisions. Sections 1 and 5 were taught at 8 o'clock and Sections 7 and 9, at 10 o'clock. Instructor A taught sections 1 and 9; instructor B taught sections 5 and 7.

TABLE 1
Comparison Between Transparency and Blackboard Taught Classes

| Media | Mean Deviations | | | | |
|--------------|-----------------|-----------|-----------|-----------|---------------|
| | Sec. 1 | Sec. 5 | Sec. 7 | Sec. 9 | Group Ave. |
| Transparency | 77.3 | | 81.3 | | 79.3 |
| Blackboard | | 76.7 | | 73.1 | 74.9 |

TABLE 2
Comparison Between Transparency and Blackboard Taught Classes
104 Students

| Media | Final Course Grades | | | | | |
|--------------|---------------------|----|----|---|---|-----------|
| | A | B | C | D | F | Drop Outs |
| Transparency | 9 | 18 | 12 | 6 | 3 | 3 |
| Blackboard | 5 | 20 | 12 | 3 | 9 | 4 |

TABLE 3
Comparison Between Transparency and Blackboard Taught Classes
Instructor A

| Media | Final Course Grades | | | | | |
|--------------|---------------------|----|---|---|---|-----------|
| | A | B | C | D | F | Drop Outs |
| Transparency | 4 | 7 | 8 | 3 | 1 | 1 |
| Blackboard | 3 | 10 | 6 | 2 | 5 | 0 |

In Table 2 differences in the extreme ends of the grade scale are apparent. Of the total number of students who made an *A* in the course, 64 per cent were in the transparency sections. Of the total number of students who made an *F* in the course, 75 per cent were in the blackboard sections. An assumption could be made after studying these results that if the large number of *B* students in the blackboard group (20) had been subjected to the transparency medium, a sizeable number of them might have moved up into the *A* bracket.

TABLE 4

*Comparison Between Transparency and
Blackboard Taught Classes
Instructor B*

| Media | Final Course Grades | | | | | |
|--------------|---------------------|----|---|---|---|-----------|
| | A | B | C | D | F | Drop Outs |
| Transparency | 5 | 11 | 4 | 3 | 2 | 2 |
| Blackboard | 2 | 10 | 6 | 1 | 4 | 4 |

Tables 3 and 4 allow for a comparison between instructors A and B in the obtained final grade results. Note that both instructors had a better teaching effort utilizing the overhead projector transparency medium.

RECOMMENDATIONS

If a teacher has not used an overhead projector, he should become familiar with one by actually working with it and not by merely observing it.

One prime advantage, according to advertising literature, is the fact that it can be operated in broad daylight. However, experience in this research study has shown that this is not exactly the case. Because of the nature of the descriptive geometry problems and because of the materials available at the time of this study, colored lines projected on the screen were washed out unless the room was darkened down approximately 80 per cent of its broad daylight reading. This allowed for deep color differentiation and a much more professional presentation.

The overhead projector is designed to allow the lecturer to stand or sit facing his class while at the same time turning overlays or writing, sketching, or drawing on an acetate roll stretched over the projection light table. It is through this new

approach that the instructor can feel that the equipment is an aid and that he retains full control of his student audience regardless of class size.

It is important to prepare transparencies previous to the lecture demonstration for two reasons: first the much improved presentation in color over a blackboard-white chalk method will increase students' attentiveness; second, because students are not actually learning anything new while the instructor is drawing lines which form the end result, colored overlays indicate subsequent theoretical steps to a problem solution and save much of the students' concentration time.

The audio-visual medium is based on three psychological bases which are especially important in education: (1) sight-mindedness, (2) reinforcement, and (3) repetition. The first of these concerns the fact that most of man's learning is acquired through a sense of vision. Authorities state that approximately 80 per cent of all knowledge is acquired through eyesight, while less than 15 per cent is learned through the sense of hearing. Concerning the retention of this knowledge, Table 5 shows the necessity of not only speaking to the students but allowing them to view problem solutions large enough so that all can get the lesson.

The present size of descriptive geometry classes is based on two factors: (1) laboratory facilities are controlled by the viewing size of a blackboard lecture section and (2) 25 to 30 students are enrolled in the classes presently because this enrollment figure has been used for years without any known statistical research to support it.

This research study shows that through the use of the overhead projector, which provides a larger image than can be drawn

TABLE 5

| Senses | 3 Hours' Retention | 3 Days' Retention |
|-----------|--------------------|-------------------|
| Ear | 70% | 10% |
| Eye | 72% | 20% |
| Ear & Eye | 85% | 65% |

Taken from the taped speech and slides prepared by Lloyd Trump, Director of the Commission on Staff Utilization, which were presented at the 1960 Workshop on Staff Utilization for Secondary School Principals at the University of Texas.

on the blackboard, a greater number of students can be accommodated in one lecture session; therefore, better staff utilization of professional teaching personnel will result. Consequently, it is recom-

mended that lecture demonstration sections be enlarged to contain 75-90 students. This would not alter the present philosophy that much of the teaching in this basic engineering subject is accomplished after the formal lecture in smaller laboratories.

Finally, here is a list of the most outstanding advantages of the transparency-overhead projector medium over the blackboard-white chalk method:

1. Larger viewing image—more professional presentation.
2. Addition of 6 colors.
3. Improvement of student attentiveness.
4. Greater time for students to ask additional questions.
5. Ease of reviewing fundamental steps to problem solutions by turning overlays.

"There's a Meeting Here Tonight"

AUDREY G. MENEFEE

COMMUNITY SERVICE is a major function of the public junior college. The institution's close relationship to the area it serves is so universally recognized that the very word "junior" is being replaced by the word "community" in many places.

One sensitive area of college-community relations has been neglected, however, at least in the literature and perhaps also in practice. This is community use of the physical plant itself.

Junior college classroom use probably exceeds the college average as reported by Philip Coombs of the Ford Foundation (who found that available classrooms are used at only 46 per cent of capacity, and laboratories at only 38 per cent of capacity)¹ because the public college has had to practice economy in its use of time and space. Still, junior college auditoriums, gymnasiums, cafeterias and conference rooms often echo only to the sound of the custodian's broom during evening hours and weekends. Playing fields and tennis courts are silent and unused in the off-hours.

A potentially vast community service is literally built into the nation's colleges—especially its junior colleges which, as a rule, are found in centers of expanding population. While these are the places where junior colleges are most needed,

they are also the places where taxpayers are hard put to pay for essential services such as schools, fire and police protection, garbage disposal, sewers, roads. Few parks or civic centers are to be seen in America's sprawling new suburbs; the customary "town meeting" places are church fellowship halls and elementary school multipurpose rooms. Perhaps more frequently than one might suppose, civic groups simply disintegrate for want of a convenient and inexpensive gathering place. A little of the democratic way of life is lost with them.

Many junior colleges are responding to the need by inviting limited community use of their facilities, but a number of factors combine to give this public service function relatively low priority. There is uncertainty over the public's legal status on school property, for example; there is also the daily press of routine college responsibilities, and there are the inevitable inconveniences attendant upon throwing open the doors to the public.

While these are not insurmountable obstacles, it should be noted that not many taxpayers realize they may have some legitimate claim on the use of their public college facilities, so they do not press the claim. Neither do academicians loudly call it to their attention. It is not in the tradition of American colleges—public or

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¹ Paul Woodring, "Education in America," *Saturday Review*, January 21, 1961, p. 77.

private—to encourage large-scale public access. By long established custom the ivory tower is not entered by non-academic persons except upon formal invitation to special events. This custom is breaking down, and the pace is being set by the public junior colleges.

Soon after American River Junior College was established in 1955, its trustees faced the issue of whether to encourage, passively permit, or actively resist public use of the college facilities. It was decided to invite public use, and by taking the initiative, the college was able to define the rules for such use so that it would not interfere with basic instructional functions. The educational program was to have priority at all times, the Board agreed, and no permit would be granted for a use which might interfere in any way with college instruction or student activities. Beyond this, the policy would be flexible and generous. By providing a simple but workable procedure to meet many of the needs of civic groups, the college has reaped important rewards, including steadily increasing community good will and public interest in its affairs.

American River Junior College was built in the geographic center of a 220-square mile district whose population has tripled in the past ten years and is expected to increase another $2\frac{1}{2}$ times by 1980. Like its counterparts elsewhere, this unincorporated area is deficient in neighborhood, community, and district centers. Rapid urbanization after World War II caused its open spaces to disappear and placed increasing strain on existing centers. The community's myriad sub-groups clearly needed a central place where both large and small meetings could be held; they needed a place where children's per-

formances could be offered; they needed a place where people of all ages could gather for leisure time and cultural activities.

When ARJC moved to its permanent campus in 1958, a staff member with public relations experience was given the part-time assignment of handling requests of community groups to visit the campus. At first the requests were scattered and rather timid in nature, but as word spread within the area more and more calls came in until their processing came to involve the cooperative skills of students, faculty, administration, and classified personnel.

It is not only the building and classrooms that are in demand; the 153-acre campus itself holds a great appeal to special groups. Since the area's wheat fields and walnut orchards have given way to tract homes and highways, there are few places left where people can see natural land close to home. The college has carefully preserved its own "wild" area along a creek bordering the campus, and frequent visits are made there by youth groups. They are sometimes guided through the creek area by ARJC life-science instructors. A Brownie day camp is in possession of a far corner of the campus for two weeks in the summertime, and the campus is a regular post for bird-watchers participating in the annual U. S. bird count.

In the 1959-60 school year, campus facilities were used approximately 400 times by community groups. In the next year, this number had been exceeded long before the end of the second term. Meetings ranged in size from ten to a thousand participants, and in releasing space the college placed few if any facilities off-limits to community organizations.

Accelerated pace of community use is shown by the figures for 1960-61, when over 30,000 persons not directly associated with the college were accommodated on the campus. Between September and February some 14,00 off-campus people occupied the facilities; by February 1, advance reservations had already been made for accommodating another 14,600 persons before the end of the school year in June. Applications had also been made as early as January for summertime use of facilities and for affairs scheduled for the autumn months.

When it is considered that day college classes run into the late afternoon hours and that evening school classes occupy most buildings four nights a week, it may seem surprising that almost every campus structure has been used at one time or another by one or more of the scores of community groups seeking a meeting place. The requests of these groups can usually be met despite the fact that no facilities are released to the public if the time or purpose of their use would conflict with college activities. And it is significant that the cost of this large-scale community service is negligible.

Three facilities are in heaviest demand by ARJC's "public"—the auditorium or Little Theater, the Student Center, and the gymnasium. These three areas were, in fact, designed by the architects to contain unique properties for meeting requirements of community organizations as well as those of students.

The student center is a popular place for ceremonial installations, awards banquets, and balls. Its main cafeteria seats 500 persons, and another 30 to 70 can be accommodated in each of four adjoining banquet rooms. When the accordian-fold

walls are thrown open 780 persons can dine together. Twice this number can be accommodated for dancing. A student lounge with fireplace and comfortable chairs is located on the large stage, and this, too, has a folding wall. When closed off from the main room the lounge becomes an attractive place for service clubs to hold board meetings and workshops. Groups using the lounge serve coffee and cookies from a pass-through bar which has a small sink and electrical outlet.

The Little Theater, a visually pleasing and acoustically excellent structure, seats 480 in theater seats. Its stage has a revolving turntable for quick scene changes and its pit can contain a small orchestra. The 70-piece Sacramento Junior Symphony orchestra rehearses on the theater stage each Saturday morning in preparation for its spring and winter concerts which are presented on the campus before large audiences.

Here, also, amateur theatrical groups, organ clubs and dance classes offer recitals and performances. Garden clubs show flower-arrangement demonstrations. Public meetings are held in the theater to air controversial issues of community concern. (A large meeting was called recently to hear county supervisors answer public protests on a proposed new storm drainage project which would increase home owners' taxes.)

When programs are scheduled in the theater or student center, the college provides the services of student assistants who have been trained to handle lighting and sound equipment. The small additional cost of this program is offset by the protection it affords college equipment and the training it provides the students.

The gymnasium is perhaps the most

thoroughly exploited structure on the campus. During the basketball and volleyball season, the ARJC gymnasium is in use six days and five nights of the week and occasionally on Sunday. Practice play by small industry and church-related teams is held here as well as district-wide tournament play involving hundreds of participants. Private tennis clubs in the area are permitted to sponsor regional tennis tournaments on the college courts.

Among the 30,000 off-campus persons who were made to feel welcome in the facilities of their community college during the year, many were experiencing their first visit to a college campus. Hundreds of teenagers participated in programs arranged by such groups as Order of DeMolay, Job's Daughters, YMCA, YWCA, Rainbow, Campfire, Girl Scouts, and Boy Scouts; others came with youth groups

sponsored by the churches of Latter-day Saints, Catholics, Seventh Day Adventists, Presbyterians, and Christian Scientists. These youngsters feel a sense of pride and ownership in their community college that perhaps could not develop so easily in any other way. Their parents, too, are becoming identified with the college through direct knowledge of its staff and its physical facilities.

The open door policy works. It helps ARJC to accomplish three important objectives: It provides part of the solution for an urgent community need; it guarantees that available facilities are used to a fuller per cent of capacity; and it serves to acquaint area residents with their community college in the best way possible—through first-hand experience and interaction with the college.

The Placement Coordinator of a Junior College

ARTHUR M. JENSEN

THE TREMENDOUS increase in junior college enrollment has forced these schools to appoint a person to supervise placement services. During the early years of junior college history, placements were made by chance through teachers and/or administrators.

As more technical and vocational courses were added to the junior college curriculums in California, the state designated that the instructors and coordinators would be responsible for placement in their area. Usually a counselor or a teacher was given a few hours daily for the general (unrelated to course of study) part-time placements for students enrolled in all fields: applied arts and science, business and technical, and for specific (related) placement in both the applied arts and science and business fields. The records of these technical placements were kept in the office of the trade coordinators.

Most junior colleges "generally have some kind of contact through which they place at least their best graduates. This practice is effective as far as it goes, but to *the degree that this program fails to try to make a good placement of the ordinary graduate and the student who leaves before graduating, it is not a well-rounded program.* These latter groups of pupils not only are in as much need of jobs as

are the really good graduates, but are doubtless more in need of the school's help if they are to find appropriate ones."¹ To take care of the needs of these students and the needs of their community, junior colleges have added placement officers who supervise the placement office, its functions and duties, and its staff.

BACKGROUND AND NEED FOR A PLACEMENT COUNSELOR

Today in California the majority of the junior colleges employ persons who devote from one-half to full time to the duties of coordinating placement. Southern California junior colleges have a Placement Officers Association to which 26 colleges belong. The Junior College Placement Coordinator constantly finds himself in the center of pressure situations. There are innumerable demands upon his time from students, faculty and employers, from conferences, from supervising his office and making follow-up studies. As a coordinator, his problem is similar to that of any other supervisor or executive. He must select, train, and motivate the personnel in his office to work effectively at their assignments, which means that he must be a good interviewer and be capable of training men and women effectively.

¹ W. J. French, Dan Huhl and B. L. Dodds, *American High School Administration* (New York: Rinehart and Company, 1957), pp. 434-435.

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There is still a feeling among some people that state employment services and private employment offices should be used. This argument is dying out but is prevalent enough to warrant the following quote: "One danger is that agencies with their fingers on the pulse of the labor market may be guided in their placements more by the *job openings of the moment than by the long range needs of the student.* A, perhaps, broader danger is that government, like industry, may tend to put its own needs before the needs of the person to be placed."²

The three main sources of pressure come from the faculty, students, and employers. "Faculty members view the placement officer from at least two angles. He is their friend when he relieves them of unwanted and unsolicited correspondence and contacts with employers who request them to recommend only their 'best' students for employment. He is their foe if he attempts to channel all contacts between students and prospective employers through his office. Faculty members value contacts with friends '*out in the world.*' They like to have a part in placing students with employers whom they know."³

Students want jobs in their field that pay well and provide good promotional opportunities, etc. They prefer not to take tests and want ample time to think over their offers. In part-time positions they insist on hours to suit themselves and many reject the so-called traditional college jobs of dishwashing and yardwork.

² Daniel Sinick, "Placements Place in Guidance and Counseling," *Personnel and Guidance Journal*, September, 1955, p. 37.

³ Richard S. Uhrbrock, "The Role of the College Placement Officer," *Personnel and Guidance Journal*, April, 1956, p. 487.

Employers all want the "cream of the crop." They want students to be ready whenever they need them and are particularly disappointed if the placement office cannot fulfill their requests immediately.

With the increasing number of youth entering the labor market, finding a job is becoming more difficult. In the next ten years 26 million youth will enter the labor market and only 12 million people will retire. These conditions do not provide easy, automatic absorption of school-leaving youth into the economic community. Therefore this country must increase the number of jobs available through growth of the national economy.

For students who continue their education at a four-year college, the shift that takes place when they leave junior college is not a distinct break. But so far in California the majority of students leave junior college without expecting to enroll in any other school; for them, leaving junior college is a complete break in the life pattern they have been following. The junior college placement efforts should take into account this whole need of adjustment. "The placement services should be organized to assist all former students—those who left before graduation and graduates, whether bound for (senior) college or not—to find places in, and become adjusted to, whatever is to be their life's work."⁴

CHARACTERISTICS OF A PLACEMENT COORDINATOR

The work of the junior college placement officer is growing in importance, and

⁴ W. J. French, Dan Huhl and B. L. Dodds, *op. cit.*, p. 430.

following are some of the characteristics he should have:

1. He should be devoted to the interest of students and not only like them himself but also be the type of individual who is liked by them.
2. He should be an extrovert.
3. He should be capable of maintaining amicable relationships with members of the faculty.
4. He must be a salesman capable of obtaining and maintaining satisfactory personal and working relationships with employers and their representatives.
5. He should have self confidence and emotional maturity.
6. Placement coordinators must be flexible because employment conditions and needs are constantly changing.
7. He should be capable in the four basic areas of supervision.
 - a. Administrative
 - b. Leadership
 - c. Human Relations
 - d. Technical

DUTIES OF THE PLACEMENT COORDINATOR

The placement office should provide services and activities which are an important part of the entire college program. The major aim is to assist each individual in continuing his growth and development through considered effective placement.

The duties of the placement coordinator are to supervise the placement office, its functions and the staff assigned to the office and ensure that this office serves the students, graduates, faculty, and community in the following ways:

1. He will supervise the individual in charge of full-time placement to see that the best possible job is done in assisting the graduate by providing guidance, help in choosing firms, assistance in preparation for the employ-

ment interview, and referrals to interviews.

2. The placement officer will continuously offer the services of his office and staff to serve and aid the trade coordinators and instructors in placing their people.
3. By close supervision and coordination he will make certain that all job requests are centralized in the placement office, thus benefiting the potential employer, department chairmen, instructors, and the students.
4. The placement officer, along with his staff, will endeavor to maintain liaison with personnel administrators in trades, business, and the industry of his college's area.
5. The placement coordinator is responsible for furnishing to instructors via department chairmen information concerning the various job requests which are related to their field of instruction.
6. He will supervise the collection and display of the current vocational trends and outlets of the different fields of study. He will see that all counselors are kept informed.
7. He will assist the guidance center in finding out why students drop out of school. When needed and desirable he will assist such a student in finding employment.
8. The placement co-ordinator has the primary responsibility of conducting follow-up studies with both graduates and employers.
9. He will supervise the part-time placement normally handled by the secretarial staff. The object of the part-time placement should not only be to help students "earn their way" but to gain working experience.
10. In the area of employer relations, the placement co-ordinator is the ambassador of good will for the college.

Following are typical job descriptions for a placement supervisor the first of which is used by the San Diego Junior College for its Placement Officer and the second by another junior college:

1. Place students enrolled in junior college in part-time jobs.
 2. Place graduates and those who have completed their training.
 3. Coordinate placement activities of all staff members involved in this area.
 4. Conduct direct follow-up and other studies related to placement.
 5. Inform students of placement services and job opportunities through use of bulletin boards, printed announcements, and other such media.
 6. Develop and maintain all necessary forms and reports relative to placement, including permanent placement records for total school to be filed in the central placement office.
 7. Direct activities of clerical personnel assigned to placement office.
 8. Assist in job and career counseling.
 9. Organize assigned time so that adequate contacts can be established and maintained with business, industry, and governmental agencies.
 10. Work with all related agencies within the community.
 11. Establish effective communications with all staff members.
 12. Develop procedures whereby speakers from business and industry may speak to students concerning employment possibilities in the community. (Possible development of a "Vocational Information Day" program.)
 13. Be responsible for releasing publicity regarding the activities of the placement office to the proper sources.
 14. Keep the public relations representative informed on activities of placement office.
1. To maintain a system of student rating and records for all students in one- or two-year vocational programs.
 2. To maintain a centralized service for part-time and full-time, temporary and permanent placement, this service to operate on the principles of recommending students only for positions in which they are prepared to succeed and dealing frankly with prospective employers regarding qualifications of persons recommended.
 3. To complete rating or reference forms for students who have applied for positions.
 4. To maintain personal contact with the business and industrial personnel of the area as a means of facilitating placement, keeping in close touch with the needs of business and industry, interpreting those needs to the college in terms of their curricular and instructional implications, and assisting business and industry to know the college.
 5. To pass upon requests of under-age students for state work permits and to sign forms for such permits as he sees fit to grant.
 6. To do an annual follow-up on both terminal and transfer students, maintaining comparable statistics from year to year and reporting findings to the college administration. The follow-up should be done with the assistance of the Coordinator of Counseling and Guidance.

In his article on placement workers, Rowe has stated, "The process of matching applicants' qualifications and capacities with those employer's specifications is perhaps the most technical aspect of placement work. The placement worker must consider simultaneously: (1) the best interest of his applicant; (2) the best interest of the employer; (3) the good standing and reputation of his school in respect to improving school-employer, student-school, and school-community relationships. To do all this, all factors involved must be carefully weighted before making a decision."⁵

⁵ Benjamin Rowe, "The Role of Placement in the Schools," *Journal of Business Education*, October, 1950, pp. 63-64.

SUMMARY

According to Dugald Arbuckle, "The emphasis in placement, as in education, should be on the individual helping himself. The institution can help the individual in many ways, but it should be clear that in the long run the real job of placement is in the hands of the individual student."⁶

Brockman and Smith think of placement as a process involving three phases. "The first is the period of preparation in which information may be given, visits or contacts made with the employer, and the individual is conditioned for the next step which involves placement. The second phase has to do with induction into the new situation. The third and final phase involves helping the worker to understand his job and to improve and move ahead in it."⁷

⁶ Dugald S. Arbuckle, *Student Personnel Services in Higher Education* (New York: McGraw-Hill Book Company, 1953), p. 108.

⁷ L. O. Brockman and Leo Smith, *Placement and Follow-up Services* (New York: Prentice-Hall, Inc., 1947), pp. 381-382.

The development of an effective and well-run placement office depends upon several factors, primarily the following:

1. The quality and capabilities of the person who is supervising the program.
2. The philosophy of the administration and faculty toward the placement office.
3. The location and the amount of space allocated to the needs of the placement office.
4. The clerical staff and materials made available for the office.

With the junior colleges coming of age and their importance increasing in higher education, their enrollments have expanded to meet the demands of the space age, and it is the responsibility of the placement officer to guide students in the proper direction. In fulfilling his duties, he must provide adequate supervision and interviews, records and forms, student evaluations, mental tests and communications. Properly managed, the placement office becomes a valuable listening post for the college in reviewing the effects of training and in appraising the development of the student.

Chemistry in the Junior College Two-Year Nursing Program

CHARLES H. HEIMLER

A COMMON problem faced by junior college faculties involved in the construction of two-year nursing programs is that of deciding whether or not a chemistry course should be included in the curriculum. In part, this problem stems from the desire to include in the two years of study as much practical and theoretical work in nursing and related studies as is consistent with sound educational planning.

Decisions concerning the choice and organization of subject matter that may be effectively taught within the time allowed have long plagued curriculum builders. If an excess of material is placed in the curriculum, the resulting program will not have depth and perspective; on the other hand, if an area of some significance is omitted, the program as a whole may suffer from lack of attention to certain basic fields of knowledge.

Justification for including a chemistry course in a two-year nursing program is based on several significant factors foremost among which is the value of the course in assisting nursing students to develop techniques of problem solving. In addition, chemistry helps students develop a deeper and broader understanding of physical and biological science principles.

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A chemistry course suitable and appropriate to the needs of nursing students will contribute to their understanding and interest in pharmacology, physiology, and microbiology, and will assist them in applying theoretical knowledge to the practical problems of professional nursing.

ORGANIZATION

The organization, subject matter, and amount of class time to be allotted to the chemistry course for nursing students must be viewed in light of the total program. The common types of organization include: (1) the traditional two-semester college chemistry course, (2) a two-semester chemistry course designed for nursing, home economics, nutrition, and technology students, (3) a two-semester course limited to nursing students, (4) a one-semester course specifically designed to provide a background for two-year nursing students.

Considering the variety of studies that merit inclusion in a nursing program, the problem of finding the necessary time to do all that should be done, and the special needs of nursing students, the author believes that a one-semester course specifically constructed to provide a background for the study of biological and nursing science is most consistent with the purposes of a two-year program. A feasible plan of organization for a course of this type

would be to have two hours of lecture and one two-hour laboratory period. In addition, it would be advantageous to include an optional hour for a discussion session.

THE LABORATORY

The experience of this author indicates that laboratory work is an essential part of every chemistry course. It is in the laboratory that the student has an opportunity to perform basic experiments, to observe chemical change, and to develop skills of particular value to nurses. In the laboratory the nursing student learns to make careful observations, to record observations in a legible manner, and to formulate intelligent and logical conclusions. Moreover, it is in the laboratory setting that the student may often find an opportunity to think-out, with the assistance of the instructor, a difficult aspect of the material being studied.

One drawback to including laboratory work in a chemistry course has often been the lack of adequate facilities and the cost of laboratory equipment. Yet, if absolutely necessary, a biology laboratory or other suitable room can be used as a chemistry laboratory, and the instructor can select a series of exercises that involve a minimum expenditure for materials. An excellent chemistry course can be offered by using less costly equipment such as test tubes, beakers, flasks, iron stands, bunsen burners, medicine droppers, glass tubing and the like.

Moreover, a worthwhile solution to the expense of running a chemistry laboratory may be found in using semi-micro equipment such as inexpensive small-size glassware which costs much less than the standard-size and requires only fractional

amounts of the chemicals that would normally be used. The reduction in breakage facilitated by the ease of handling this type of equipment contributes to the reduction in cost.

THE CURRICULUM

The common fault with offering the so-called short or survey courses is that the curriculum is often filled with as many topics as are included in a traditional program. The net effect is a skimming over of a large number of topics, a resulting lack of depth of student understanding, and the ultimate dissatisfaction of students and instructors alike. This problem has been particularly acute in the construction of science courses for nurses. Thompson and Leavell aptly state, "Many nurses report that they found science courses a burden of memorization and giving back to the teacher little understood facts."¹

The selection of topics for a course in chemistry for nursing students should be made on the basis of (1) value in building a basic understanding of the structure of matter and the essentials of chemical change, (2) usefulness in serving as a foundation for the study of pharmacology and physiology, and (3) direct application to nursing.

Topics that were selected and utilized by the author in the development of a one-semester junior college course in chemistry for nurses are listed below.

1. Energy and Matter
2. Atomic Structure—Radiation—Nuclear Energy

¹ L. R. Thompson and L. C. Leavell, "Science in the Education of the Professional Nurse," *Teachers College Record*, Vol. 58, No. 5, pp. 278-282.

3. Chemical Change—The Chemical Bone—Chemical Equations
4. Oxygen—Hydrogen—Water
5. Solutions—Dissociation
6. The Fundamentals of Organic Chemical Structure and Reaction
7. Biochemistry—digestion, respiration, body fluids
8. Chemotherapy—utilization of chemicals in the treatment of disease

In this course the elementary principles of atomic structure and chemical bonding are developed early and serve throughout as threads to tie the concepts and facts together. Moreover, the principles of structure and chemical bonding lend a basic theme to the work of the course. By constant reference to these principles and

through continual use of illustrative facts and examples to demonstrate these principles, students are guided into developing a deeper understanding of chemistry than they would have in a course that was primarily descriptive in nature.

In summary, it may be said that a course in chemistry is an important ingredient in a two-year nursing program. The construction of a laboratory chemistry course that stresses fundamental principles and concepts will serve to strengthen the overall nursing program in that it will serve as a foundation for the study of biological and nursing science. Further, such a course can aid a student to apply the principles of physical and biological science to the solution of practical nursing problems.

What About the Reject?

MILO VAN HALL

DETERMINING which students to admit to junior colleges from among all those who desire to enroll is becoming an increasing problem. Like the four-year college, the junior college is receiving more applications and the size of classes, facilities and growth are not keeping up with the number who wish to gain admission. This focuses attention on the reject.

WHO IS HE?

The junior college applicant may be a reject because of one of several reasons. Often he is not adequately prepared in high school. Frequently his high school subject pattern has been poorly planned, without thought of college requirements necessary for admission today. He may have underachieved in high school or be a victim of circumstance.

The objectives of the junior college may be vague or misunderstood by the high school counselor. Many unqualified students are urged to apply to the two-year college because they are told that enrolling there is easier than in a four-year institution. While the junior college prides itself on the fact that it can often do an educational salvage job on the underachiever in high school or be able to develop the late bloomer, still the classroom

rigors plus the demands of better educated graduates by employers force the admissions officer to look with skepticism at all non-bona fide qualified applicants. Often the applicant has little or no comprehension of the terminal consequence of his training and either mentally or physically is disqualified because he would not be employable in his field of specialization after graduation.

Who is the reject? Well, he may be one of any number of applicants. The reasons he is rejected may be of his own doing, his advisors, his parents, or he may likely be the victim of a population explosion which means that there are better qualified candidates than he to fill the precious classroom seats, dormitory beds or even the campus parking places! Whatever the reason—he's here—in ever-increasing numbers and his group may well be in the majority.* If so, then consideration of him and his problem becomes one of education and of the people involved in it.

THE REJECTION INTERVIEW

The rejection interview is of greater consequence than the acceptance interview. The rejectee is a person who needs additional counseling, while the accepted applicant has been successful in his attempt to be admitted to college. By not

MILO VAN HALL is Director of Student Services and Dean of Admissions, State University of New York Agricultural and Technical Institute, Alfred, New York.

* Alfred State Tech last year denied admission to over 1,000 applicants while accepting a freshman class of 750.

accepting an applicant the college creates more problems, anxieties, doubts, indecision, tensions, and unanswered questions than the student had before he applied. This is the person who needs help, and it is the responsibility of the college to help solve some of the problems it has created.

Rejection can be a stunning blow to both student and parent. High hopes born in early childhood, ambitions, social prestige and parental aspirations are all shattered suddenly and all can cause unfortunate consequences in the emotional and mental attitudes of the rejectee. The admissions officer too often encounters tears, quivering lips, and furtive glances from one member of the family to another, if the parents are present.

The rejection interview must be friendly, sincere, unhurried, and impregnated with sympathy and understanding. The admissions counselor must believe what he says. He must understand the student's viewpoint and at the same time he must appreciate the position of the parent.

The rejection interviewer must make "No" sound as though it is the only logical answer. Careful analysis of the application must be made, and reasons for rejection must be valid or the counselor and the college will be put in a difficult situation.

Also, the interviewer must provide some choices of procedure. Where does the student go now? Home? This is an easy answer but not a good one. Other schools, other vocational choices, service experience, work—these and many other choices may be suggested. Certainly, the whole interview should be permeated with the idea of "help."

THE REJECTION LETTER

The rejection letter should contain the facts, undeniably making the college's position clear and leaving no doubt in the student's mind as to the decision. It should be written in effective English and with tact. It may include an invitation for a visit to the admissions office if an interview has not already taken place.

Timing is important. The disappointment of a rejection letter is great enough, but there is no necessity that it reach the applicant the day before Christmas. This letter can just as well be sent after January 2. It seems that not only public relations are involved but human relations as well.

Individual letters consume time and money, but here perhaps is where time and money should be spent. Some rejects and their parents often become loyal friends of the institution if a personal approach is made. This writer is aware of the volume of rejections necessary today. Form letters cannot do the job, but many schools are being formed to use them.

THE REJECTION FOLLOWUP

At Alfred State Tech the form shown below has been used successfully for the past four years.

This form is sent to the high school guidance counselor after the letter is sent to the student. Counselors have indicated that this information helps them not only in further counseling with the rejectee but also in their work with other students who may be interested in applying.

A personal line or two after "Remarks" does much in many cases to keep the line of communication friendly and the high

school counselors on amicable terms. This form may not indicate that "you care enough to send the very best," but it does indicate that you care.

SUMMARY

If the admissions officer in the junior college aspires to professional stature, then his methods must meet professional

standards. He is dealing with human beings, often distraught, unconfident and sensitive youngsters, and his philosophy and procedure can do much to help young people through a difficult experience. If colleges use selective admissions, they must be able to deal professionally not only with those students who are accepted but also with those who are not.

STATE UNIVERSITY OF NEW YORK
Agricultural and Technical Institute
Alfred, New York

Name
School

Admissions Committee Action

1. Accepted
2. Low Selective Admissions Test score.....
3. Rejected
4. Lack of entrance pre-requisites for course
5. Admitted for the Extended (Refresher) Program
6. Action postponed pending further information

Reasons for Rejection

1. Low high school grades.....
2. Low Selective Admission Test score.....
3. Combination of (1) and (2).....
4. Lack of entrance pre-requisite for course requested.....
5. Low percentile on standardized tests.....
6. Rejected for course requested but would accept for other course.....

Remarks:
.....
.....

The Paperback Revolution and the Junior College

HENRY LASH

ALMOST HOURLY the status and respectability of paperbound books are growing. Today most of the world's finest writers, both current and classic, are appearing in paperbacks, the yearly sales of which have topped 300,000,000! It certainly seems that these little books have become the biggest thing in the publishing industry.

Does this paperback revolution have special meaning for the junior college? If so, what can we do about it?

As a veteran junior college librarian, who also happens to be a paperback *aficionado*, I am vitally interested in these questions, and I would like very much to offer up right now a couple of ideas on the subject—for what they're worth.

Regarding the relationship between the junior college and paperbacks, I think Dr. Howard Campion, California junior college authority, comes close to hitting the nail on the head. "Our California junior colleges," states Dr. Campion, "have always striven to bring higher education and the right to learn within the range of all regardless of economic position. Publishers of the finer paperbacks are now doing the same thing. More power to them!"

HENRY LASH is the Librarian at Los Angeles Trade-Tech College, Los Angeles, California. In addition to being a book review editor for this journal, he is the paperback editor for the *Los Angeles Examiner*.

I feel that Dr. Campion's point is well made because we junior college people do have at least this much in common with paperbacks. But now I'd like to ask the vital question: How can the junior college best take advantage of the paperback revolution? Here another outstanding educator, Dr. Frank Baxter, one of the great English teachers of our time, throws light on this problem. "Thanks to paperbacks," Dr. Baxter writes, "it is now possible for anyone to build an inexpensive personal library of the world's classics and by reading and rereading these to acquire what amounts to a liberal education."

If we dwell on this truth and then consider the fundamental characteristics of paperbacks—first their low price, and second their loyalty to but one owner (they literally fall apart at the seams when serving several masters)—we must conclude that the place of the paperback on the junior college campus is not so much in the library as it is in the student book store. Junior college students should be encouraged by their instructors to *buy* the better paperbacks.

I must hasten to add, however, that the junior college library also has an important role to play in regard to paperbacks. The library should have a few paperbacks to supplement and implement popular hardcover editions in the collection. But

it must be borne in mind by the librarian that paperbacks are expendable, and time and money should not be wasted in processing these perishable and inexpensive books. Moreover it's a splendid idea to place paperbacks right out on a special and very prominent rack where they may be used to promote reading in general.

Perhaps the most important function of the junior college library in regard to paperbacks is advisory. The library must help instructors in stocking the paperback rack in the student store. In this regard let me point out that the great guide to the purchase of paperbacks is, of course, *Paperbound Books in Print*, published quarterly by R. R. Bowker Company, 62

West 45th Street, New York 36. The price is \$6 per year, or \$2 per copy.

Publishers' catalogs are a fine guide to the purchase of paperbacks, and they are free for the asking. Following is a list of some paperback publishers who produce 90 per cent of these little books which, like the junior college itself, are now looming so large on the American educational scene: Avon Books, 575 Madison Avenue, New York 22; Bantam Books, 25 West 45th Street, New York 36; Dell Books, 750 Third Avenue, New York 17; Fawcett Publications, Greenwich, Connecticut; New American Library, 501 Madison Avenue, New York 22; Pocket Books, Rockefeller Center, New York 20.

Current Publications Received of Interest to Junior College Readers

Barnes, John B. *Educational Research for Classroom Teachers*. New York: G. P. Putnam's Sons, 1960. Pp. xvi + 229. \$4.00.

The author introduces the reader to a kind of research that is teacher-oriented and to a kind of teaching that is research oriented. The book serves the general field of educational research in terms of its basic methods and techniques and then, importantly, shows three large areas of educational work in which research may be applied: the study of individuals, the study of classroom groups or sub-groups, the study of teaching and learning problems. Each of these areas is illustrated by real cases which open up practical ways to apply research techniques to the study of many kinds of teacher-administrator problems.

Bowles, Frank H. *How to Get Into College* (revised ed.). New York: E. P. Dutton & Co., Inc., 1960. Pp. 185. \$1.15.

No man in the country knows more about how to get into college than Frank H. Bowles. For the last ten years he has been Director and, more recently, President of the College Entrance Examination Board. *How to Get Into College* is the result of his wide knowledge and first-hand experience in dealing with the questions most high school and prep school students ask about college. Here in eight detailed chapters, he dis-

cusses every aspect of the problems facing today's college-bound boys and girls.

Ellis, Harry B. *Challenge in the Middle East*. New York: The Ronald Press Co., 1960. Pp. vii + 238. \$4.00.

Harry B. Ellis, an experienced newspaper correspondent who has worked in the Middle East for several years, presents in this book the facts of Communist penetration of the Middle East and his conclusions about effective American policy in this area.

Fredericks, Pierce C. *The Great Adventure*. New York: E. P. Dutton & Co., Inc., 1960. Pp. 253.

Here is the complete and memorable story of America's participating—on land, at sea, in the air, and on the home front—in World War I, sometimes referred to as the forgotten war.

Gardner, Eldon J. *Principles of Genetics*. New York: John Wiley and Sons, Inc., 1960. Pp. vii + 366. \$7.50.

With the purpose of developing a full account of modern genetics, the author concentrates on the basic fundamentals of the science, rather than on particular materials or techniques. Examples are cited in the cases of human beings, as well as animals and plants, and microbial genetics is included where appropriate. Ever present throughout the text are illustrations of the experimental nature of this fast growing science.

Hoeflin, Ruth M. *Essentials of Family Living*. New York: John Wiley & Sons, 1960. Pp. viii + 282. \$5.75.

For most students, the years spent at college represent a period of preparation for the demands and responsibilities of adult living. Recognizing this, many colleges and universities have instituted courses which are intended to help students understand and adjust to the problems they face in college and the challenges they will face after college. *Essentials of Family Living* is designed for just such a course. It has been written in the belief that the "emotional maturity" which is necessary for happy and productive living can be acquired through an understanding of oneself, an appreciation of adult responsibilities, and an awareness of the needs and concerns of others.

Hughes, James Monroe. *Education in America*. Evanston, Ill.: Row, Peterson and Co., 1960. Pp. xiii + 496.

In this book the author has attempted to describe faithfully what America has done, is doing, and may be expected to do toward providing its people with an adequate education. Two types of readers have been kept in mind—the prospective teacher who may be taking his first college course in professional education, and the layman who for various reasons wishes to become intelligently informed about education as it has been and is being conducted in the United States. While some of the chapters are addressed particularly to the beginning student in professional education, all the chapters have in them something that will be of interest also to the general reader.

Humphreys, J. Anthony, Arthur E. Traxler and Robert D. North. *Guidance Services*. Chicago: Science Research Associates, Inc., 1960. Pp. xv + 414. \$4.50.

This book, part of SRA's professional guidance series, is designed to provide a basic orientation to the guidance field with particular usefulness for people taking beginning courses in guidance and pupil personnel work. The edition includes basic concepts and procedures for guidance services at all educational levels. It includes sections on the understanding basic to guidance work, guidance tools and techniques, and solving students' major problems, administration of the guidance program and the future of guidance services.

Ingraham, Christine P. *Education of the Slow-Learning Child* (3rd ed.). New York: The Ronald Press Co. 1960. Pp. vi + 390. \$5.50.

This book presents the educational programs designed to discover and develop the assets of a wide range of mentally retarded or slow-learning children. It begins with an examination of the needs and potentialities of the mentally retarded and the problems that teachers, parents, and interested members of the community face in providing programs of special education for these particular children. It then discusses in detail the methods and techniques of meeting these problems. Throughout, focus is on understanding and aiding the retarded child to grow and develop in a wholesome educational environment. Primarily this volume has been prepared for special education teachers and administrators. It can also serve as a guide for the general school administrator,

psychologist and social worker who face the problems of the mentally retarded.

Kaplan, Max. *Leisure in America*. New York: John Wiley & Sons, Inc., 1960. Pp. xii + 350. \$7.50.

What is leisure? What factual trends in its use are observable? What are the factors in American life that affect these trends? Can a classification be developed that will go beyond the mere listing of activities and into the dynamics of meanings and functions? How is leisure activity patterned or structured in groupings and in time? How is it chosen and modified? This book seeks to explore such issues.

Kepler, Harold B. *Basic Graphical Kinematics*. New York: McGraw-Hill Book Co., 1960. Pp. viii + 313. \$6.00.

This book stresses the graphical approach to kinematics. It keeps analytical work to a minimum and presents explanations and derivations graphically where possible. This approach enables the reader to understand the material without a knowledge of calculus.

Loebssack, Theo. *Our Atmosphere*. New York: Mentor Books, 1960. Pp. xvi + 190. \$.50.

On March 13, 1956, the first man-made starlight appeared in the skies over New Mexico. This milestone marked the distance man has traveled from his primitive ancestors who worshiped the austere bodies of the heavens as their gods. Here is delightful recounting of the results of man's insatiable quest for knowledge and how discovery of his origins came from clues in the air above him.

Mowrer, O. Hobart. *Learning Theory and the Symbolic Processes*. New York: John Wiley & Sons, Inc., 1960. Pp. xi + 473.

During the past decade, few developments in the behavioral sciences have been so striking and significant as those pertaining to the symbolic processes. This book describes and interprets these developments. The special idea which emerges is that of imagery and, with it, the whole domain of cognitive (symbolic) processes and consciousness.

Mueller, Francis J. *Intermediate Algebra*. New York: Prentice-Hall, Inc., 1960. Pp. x + 374. \$5.95.

"Intermediate algebra" is a nebulous, ill-defined entity. It usually begins at a place where no previous knowledge of algebra is required, and ends at almost as many different places as there are intermediate algebra texts. In this book the author has tried to cope with this problem by offering in ten basic chapters the usual staples of an introductory algebra course, and in seven supplementary units the more frequent peripheral topics of such courses. These latter units may be studied in any sequence or combination, as their developments are independent of each other. Their only dependence is upon what has been included in the ten basic chapters.

Mussen, Paul Henry (ed.). *Handbook of Research Methods in Child Development*. New York: John Wiley & Sons, Inc., 1960. Pp. x + 1061. \$15.25.

This is the only book on child development designed to give a broad coverage of research methodology. It is not a sub-

stantive textbook. Research work and findings are often cited and explained, but these are used only to illustrate research methods.

Petersen, Renee and William. *University Adult Education*. New York: Harper and Bros., 1960. Pp. xx + 288. \$5.50.

Educational philosophy holding that the function of schools is not to teach, but rather to reduce personal alienation, to amuse their charges, and to create a more congenial society, has been under heavy attack. Its last redoubt is adult education. This volume, restricted to university adult education, is developed from the single premise: significant college-level education of adults is an important task and a legitimate expression of higher education's mission. But, to carry out this function, typical general extension activity must be cleansed of "university noneducation for adults." It must also be protected against commercialism and denigration by the rest of the campus. This timely "Guide to Policy" suggests principles of operation for education policy, financing, organization, and administration.

Pollack, Philip. *Careers and Opportunities in Science* (revised ed.). New York: E. P. Dutton & Co., Inc., 1960. Pp. 194. \$3.95.

This new edition of a book first published in 1945 titled *Careers in Science*, and revised in 1954 under the present title, has been made necessary by the phenomenal advances in science and technology that have taken place since the previous edition was published. These advances have been especially

marked in the fields of electronics, atomic energy, biochemistry, geophysics, and medical research. *Careers and Opportunities in Science* is concerned with the work of scientists of all kinds, but especially of those engaged in basic research.

Root, Kathleen Berger and Edward E. Byers. *The Medical Secretary*. (2nd ed.). New York: McGraw-Hill Book Co., Inc., 1960. Pp. vii + 376. \$5.25.

The Medical Secretary presents systematically the principal roots, prefixes, and suffixes used in medicine. The medical secretarial student is also provided the opportunity to become familiar with simplified shorthand outlines, spelling, pronunciation, and definitions of the most-used medical words. The authority for the syllabication and definition of each word is Dorland's *The American Illustrated Medical Dictionary*.

Stewart, Marie M., E. Lillian Hutchinson, Frank W. Lanham, Kenneth Zimmer. *Business English and Communication* (2nd ed.). New York: McGraw-Hill Book Co., Inc., 1961. Pp. xii + 564.

Thousands upon thousands of successful business employees received their training in business English from the various predecessors of this book. For nearly fifty years, *Business English and Communication* in its several editions has served as the solid foundation upon which success in business has been built.

Stout, Evelyn E. *Introduction to Textiles*. New York: John Wiley & Sons, Inc., 1960. Pp. xviii + 363. \$6.50.

Here is a book which fills a need in

modern textile studies, describing as it does some ninety important natural fibers and thermoplastic or non-thermoplastic man-made fibers within the definitions and generic classifications of the new Textile Fiber Products Identification Act. Particular attention is paid to discussion of wash-and-wear develop-

ments and mixtures and blendid fabrics. Modern texturizing processes for thermo-plastic filament yarns are explained as carefully as possible so that the student or layman with little knowledge of the field will completely understand.

This I Tried and Found Helpful

Derivations Made Easy

J. P. O'Connor, Wentworth Institute, Boston, Massachusetts

The teaching of such engineering subjects as hydraulics or analytic mechanics requires the solution of many problems by the student and by the instructor on the blackboard. Most of these problems can be solved by the application of formulae, but a complex problem requires that the student be able to derive the formula. Hence, instructors teach the derivation. Students dread these derivations and rarely learn them.

When considering a topic in analytic mechanics, such as friction, the writer puts many simple problems on the blackboard, merely plugging in the quantities, and assigns two or three similar problems as homework in addition to the two regular problems. This compels the student to take complete blackboard notes and to do the homework problems using the formula.

At the next session, the writer derives the formula and does more complex problems based not only on the formula but on the thinking behind it. In every instance, students ask intelligent questions relative to the formula showing that they understand the steps taken to derive it and how to use it.

Students' dread of derivation can be

alleviated by showing them that every derivation evolves from a figure, and that in order to remember the derivation, they need to remember only the figure; the steps of the derivation fall out of the figure. This instructor has found it expedient to remind students that every one of them can draw a picture of the American flag; therefore, they can remember how to draw the picture of a block sliding down a plane. Or, in a course in highway curves, those who can draw the American flag can draw a highway curve, its chord, and the three radii. From this figure, seven highway curve formulae can be read off.

With this method, the writer has inspired students by doing simple problems using ordinary units before doing the actual deriving, and has impressed them with the use of the most powerful tool in study, visual aid, in the shape of the figure which underlies the derivation.

This instructor generally gives two derivations on a final examination, and the students always answer them correctly. It is hoped that this method may help other instructors to teach the difficult engineering sciences of analytic mechanics, highway curves, differential calculus, hydraulics, thermodynamics, etc.

From the Executive Director's Desk

EDMUND J. GLEAZER, JR.

THE COMMITTEE on Junior and Senior Colleges has recently completed a report on its activities. The report includes a tentative statement of principles to guide the transfer of students from junior to senior colleges. Official endorsement has been given the statement by the three participating organizations. Because of its importance the complete report is given below.

A PROGRESS REPORT OF THE COMMITTEE
ON JUNIOR AND SENIOR COLLEGES
of the
ASSOCIATION OF AMERICAN COLLEGES,
AMERICAN ASSOCIATION OF JUNIOR
COLLEGES,
and the

AMERICAN ASSOCIATION OF COLLEGIATE
REGISTRARS AND ADMISSION OFFICERS

Each of the last three centuries has made a distinctive contribution to the growth of our unique system of higher education. If the liberal arts college may be said to be the characteristic expression of American zeal for higher education in the eighteenth century, and the land-grant college constitutes the corresponding achievement in the nineteenth century, surely the junior college occupies the same place in the twentieth century.

Each of these kinds of higher education came into being to meet a definite social need, recognized at a particular time. The first liberal arts colleges were established

in the American colonies on the Oxford and Cambridge model to insure that the churches should not lack a literate ministry. The land-grant colleges were created by the Morrill Act of 1862 to provide education in the agricultural and mechanical arts for young people who did not look forward to careers in the "learned professions" for which the traditional college education was designed. The two-year colleges came into being, almost entirely in the present century, to meet the needs of those who did not wish to commit themselves to four years of post-secondary education or were unable or unwilling to face the expense of attending a college far away from home.

Three types of educational programs are available at junior colleges: a general or "university-parallel" program, the satisfactory completion of which enables a student who wishes to continue his education to transfer to a four-year college or university; a technical or semi-professional program, usually terminal in nature; and a program of adult or continuing education.

Across the expanse of America, from Florida to Alaska and from Massachusetts to Hawaii, there are today more than six hundred public and private junior and community colleges of various size. As of October, 1960, they enrolled more than 750,000 students. New two-year institu-

tions are coming into being every year and enrollments are increasing rapidly.

Approximately one in every four students who began a formal degree program in 1960 was enrolled in a junior college. In some parts of the country the proportion was even higher. One county in Florida reports that nine out of ten students who entered college last fall are attending two-year institutions. In several states—New York, Michigan, Mississippi and California, for example—junior and community colleges are educating—or will soon be educating—at least half of all beginning college students. In California, more than 60 per cent of all freshmen and sophomores are enrolled in (public) junior colleges, and the indications are that in ten years the two-year institutions will be accommodating more than 40 per cent of the state's *total* full-time enrollment. The junior college has clearly become an important factor on the American educational scene.

The junior colleges do not constitute a separate educational system; they merely provide another kind of educational opportunity. They are an integral part of our overall system of higher education, and as such are closely bound to the other types of institutions that make up the system.

The recognition of this fact led the Association of American Colleges and the American Association of Junior Colleges to initiate, in 1957, steps to bring about a closer cooperation between two- and four-year institutions. Both organizations saw a need to clarify areas of mutual interest and improve channels of communication between their two constituencies. They were particularly anxious to see what could be done to facilitate the transfer of the increasing numbers of junior college

graduates who were eager to continue their education at four-year institutions.

A joint committee, called the Committee on Junior and Senior Colleges, was formed to look into the situation and make such recommendations as seemed appropriate. Originally composed of six members—three from each Association—the committee has, since 1958, also included three representatives from the American Association of Collegiate Registrars and Admission Officers. The committee has met several times since 1957. Between meetings, members have engaged in a vigorous exchange of ideas by correspondence and have taken part in a number of panel discussions on relations between two- and four-year colleges. These were held at the committee's suggestion in conjunction with the annual meetings of each of the three participating organizations and of the American Council on Education.

At an early meeting the committee agreed that it should (1) find out as much as possible about the present state of junior-senior college relations; (2) establish areas that need to be studied in depth; and (3) formulate a list of recommendations for dealing with matters in which the two types of institutions have a common interest.

In the summer of 1958, the committee submitted a questionnaire to a selected group of ten universities, fifteen four-year colleges and twenty-five junior colleges. As a result of the returns to this questionnaire and of its own deliberations, the committee was able to prepare the following tentative statement of principles to guide the transfer of students from junior to senior colleges. This statement has been

officially endorsed as a progress report by the three participating associations.

"I. Junior and senior colleges should seek better means of communication in regard to mutual problems. The following procedures are suggested:

- (a) Transfer regulations should be published in college catalogues.
- (b) There should be more state and regional conferences on mutual problems.
- (c) There should be more visitations in both directions.
- (d) There should be maximum participation by college faculty and administrative personnel in professional associations that cut across lines of institutional type.
- (e) Appropriate personnel should become familiar with the publications of the Association of American Colleges, the American Association of Junior Colleges and the American Association of Collegiate Registrars and Admission Officers.

II. Both junior and senior colleges should make continuing studies of the academic success of transfer students and of the non-academic problems met by such students. Senior colleges should furnish junior colleges with a transcript of the grades made by transferring students and with a report on the general adjustment of such students. Cooperative research is needed in such areas as:

- (a) The academic problems of transfer students.
- (b) The non-academic problems of transfer students.
- (c) The dropout rate of transfer students from junior colleges as compared with that of transfer students from other types of institutions.
- (d) The financial resources (scholarships, loan funds, etc.), available to transfer students.

III. For purposes of admission and acceptance of credit, the junior college transfer applicant should be accorded treatment by the senior college comparable to that which would be given to a transfer applicant from a senior college.

IV. The transfer student should be sub-

jected only to qualifying tests applicable to the "native" student.

V. Courses taken in one college should be accepted for transfer credit if the content of the courses fits the student's educational program in the receiving college.

VI. Junior college grading practices should be such as to provide the student with reliable guidance as to his probable success in a chosen senior college and in a chosen major field of study.

VII. The senior college should provide for due consideration of junior college grades in the award of scholarships, honor standing and election to honorary societies.

VIII. Senior colleges should study the desirability of increasing the proportion of upper-division students and should recognize the junior college as a desirable source of students.

IX. Since the junior college offers only two years of higher education, the senior college should give special consideration to the junior college graduate who wishes to continue his education."

The committee hopes eventually to present a definitive set of principles for adoption by the three associations and to prepare an appropriate manual for the guidance of both junior and senior colleges.

In furtherance of this objective, the committee and its parent organizations have completed arrangements for a national study of the factors affecting the performance of students who have transferred from junior to senior colleges. The study will be financed by a grant from the U.S. Office of Education to the Center for the Study of Higher Education of the University of California and will be conducted under the supervision of Dr. Leland L. Medsker, Vice-Chairman of the Center. The Committee on Junior and Senior Colleges will serve in an advisory capacity. The study will be launched in

1961, and when it is completed the findings will be published and distributed in the handbook referred to above. The committee believes that the study will have far-reaching implications for better articulation and more effective transfer procedures between junior and senior colleges, and it earnestly invites the cooperation of the institutions that will be approached by the study director.

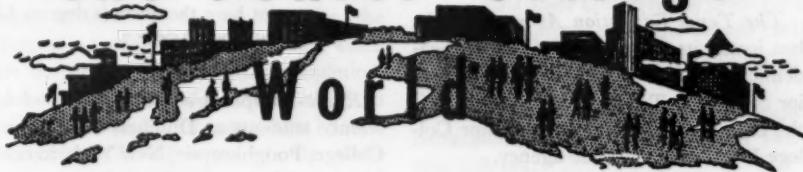
The committee plans to investigate other areas of mutual interest as time goes on. All three of the participating associations are convinced that the type of co-operation and coordination represented by the Committee on Junior and Senior Colleges is essential to the welfare of our educational establishment in the difficult years ahead.

For *Association of American Colleges*: Frederick deWolfe Bolman, Jr., Pres., Franklin & Marshall College; H. Ellis Finger, Pres., Millsaps College; George H. Armacost, Pres., University of Redlands; Theodore A. Distler, Exec. Dir., Association of American Colleges (Ex Officio).

For *American Association of Junior Colleges*: Peter Masiko, Jr., Dean, Chicago City Junior College; Edward W. Seay, Pres., Centenary College for Women; James Wattenbarger, Director, Division of Junior Community Colleges, Florida Department of Education; Edmund J. Gleazer, Jr., Exec. Dir., American Association of Junior Colleges (Ex Officio).

For *American Association of Collegiate Registrars and Admissions Officers*: R. F. Thompson, Dean, University of Tennessee; Clyde Vroman, Director of Admissions, University of Michigan; Charles E. Harrell, Registrar, Indiana University (Ex Officio).

The Junior College



EDMUND J. GLEAZER, JR.

A new survey on Iowa's future needs and resources for higher education recommends that "the Iowa State Legislature authorize the establishment of regional community colleges as the best means of relating education beyond high school to the manpower problems in Iowa." The survey, requested by the legislature, was made because of the general concern in the state over how to handle the expected increase in college enrollments during the 1960's. Dr. Raymond C. Gibson, Professor of Higher Education at Indiana University, directed the study.

On the basis of all research involved in the study, it was noted that Iowa needs a system of regional community colleges. It was felt that this is perhaps the most serious gap in the entire educational system of the state.

The survey report states that regional community colleges in Iowa should be organized in terms of large local units comprising from one to four or more counties and a local community college board should be empowered to tax the local community for support.

Other "shoulds" formulated by the survey are:

1. State authority with respect to community colleges should be exercised through the State Board of Public Instruction and the State Department of Public Instruction, which should have the responsibility for co-ordinating community college education in the state.

2. There should be a Community College Commission, composed of the State Superintendent of Public Instruction as chairman, the presidents of the three state colleges and universities, and three presidents of private colleges. The commission would provide professional advice concerning the establishment of community colleges based upon demonstrated needs in local regions.

3. There should be an executive secretary of the Community College Commission whose office would be in the State Department of Public Instruction. He should be a staff officer to carry on research and evaluation and to serve as liaison between all groups and authorities concerned with the community colleges. This position should be established at a high level, comparable in professional requirements and salary to a deanship in a major university.

4. Regional community colleges should have a minimum of 500 students. The state should start this program gradually, and each region interested in the program should be assisted by the staff of the State Department of Public Instruction in carrying out the necessary research and in formulating a plan. A limited number of present junior colleges

could be developed into regional community colleges. It was recommended that the state pay at least one-half of the cost for building and operating such colleges.

* * *

The Texas Education Agency, Austin, has issued its annual report for the academic year 1959-60 on the 32 public junior colleges in Texas. B. W. Musgraves is the executive director of the Junior College Division of the state agency.

For the fiscal year of 1959-60, the Texas legislature appropriated \$5,177,997 to be paid to the public junior colleges, allocated on a fixed sum for each college. This amounted to approximately \$229.72 per full-time student equivalent.

The public junior colleges in Texas offer education and training for all residents of their geographic areas who are high school graduates, or who are above high school age, on the basis of their needs, interests, and abilities. They were established as tax-supported institutions through the initiative of local citizens and are locally controlled by elected boards of trustees or regents.

Buildings, land, and all other physical facilities, as well as maintenance and operation costs, are provided by the local communities. A major part of the current educational operational cost is provided locally, with supplementary support being provided by the state through legislative appropriation.

The annual public junior college reports for 1959-60 reveal that the estimated property value of the 32 public junior college districts was \$65,155,348.

Data on instructors for the period covered are as follows:

59.4 per cent of the total staff of all public junior colleges are full-time regular session instructors.

\$5,683 is the average salary of all full-time regular session instructors.

10.3 per cent of all full-time instructors have the bachelor's degree; 71.4 per cent have the master's degree; 16.5 per cent have the doctor's degree; 1.8 per cent have no degree.

* * *

Radio-isotopes are now being used by science students at Dutchess Community College, Poughkeepsie, New York, in connection with their studies of digestion, circulation, and other metabolic processes.

Dr. Lawrence Monaco, associate professor of biology, recently received a supply of radioactive materials from the Radiation Biology Institute. Some of the materials received will also be used for demonstration purposes in the college's chemistry courses.

Last summer Dr. Monaco participated in a six-week study program at Syracuse University which was sponsored by the Radiation Biology Institute and supported by grants from the Atomic Energy Commission and the National Science Foundation. The program was designed to promote dissemination of information about radiation and its effects on plant and animal life.

* * *

Kellogg Community College, Battle Creek, Michigan, received two grants, one last December and the other in January, totalling over \$761,000, for the expansion of its building program.

The first grant of \$311,477 was made by the W. K. Kellogg Foundation to the Battle Creek Board of Education to support the Foundation's original grant of \$1,750,000 for the new Kellogg Community College campus.

Already completed on the new 66-acre campus are an administration-classroom

building, a science building with two lecture amphitheaters seating 78 students each and facilities that include a greenhouse for botanical study. The heating plant to serve all the buildings on the campus is completed. Under construction are the library, now nearing completion, and an auditorium and student activities building scheduled for completion by next September. Modification of the auditorium into a Little Theatre, seating 367 and including professional stage equipment and lighting, is in progress. Total cost of the buildings and landscaping will be \$2,707,015, of which the total Foundation contribution represents a little over 76 per cent.

The second grant of \$450,000 was a memorial bequest made by the Lane-Thomas Foundation for building a technical training center on the campus. The new building will permit a vast expansion of the college's technical training program, not only for day students enrolled in two-year terminal courses but also for area residents taking special evening classes. The Battle Creek Public Schools are furnishing the site and equipment for the new building.

* * *

The report on the fourth survey of "Source and Educational Background of New Junior College Teachers in California" was sent out recently to junior colleges from Mt. San Antonio College, Walnut, California. The survey included 559 new teachers in 60 California junior colleges for the year 1960-61. The report shows that among the new junior college teachers who taught last year 17 had taught at the elementary level, 181 at the high school level, 109 at the junior college level, and 72 at the four-year college

level. Last year 342 had taught in California, 51 outside of California.

* * *

A revised State University of New York Master Plan proposed for the decade 1960 to 1970 and beyond was announced in January.

The plan contains the following major recommendations for New York's two-year colleges:

1. New community colleges should be immediately established in Monroe, Onondaga, Jefferson, Ulster, and Warren-Washington Counties. (Warren-Washington is under way.)
2. Detailed plans for the expansion of community college facilities in New York City should now be developed by the appropriate agencies.
3. All public two-year colleges, with the exception of the Fashion Institute of Technology, should institute programs in the liberal arts and sciences.
4. The formula governing the financial support of community colleges will be reviewed by the State University Board of Trustees and any revision found desirable will be recommended to the legislature. Particular attention will be given to an annual chargeback to the county of student origin of a portion of the capital expense. It is recommended that any revision be undertaken in consultation with representatives of the appropriate state and local agencies.

5. The agricultural and technical institutes should be continued as two-year state-operated colleges with programs in the liberal arts and sciences. However, legislation should be enacted which would permit the localities in which these institutes are located to acquire them as community colleges.

The expansion plans of the community colleges now in operation in Nassau, Suffolk, and Erie Counties should consider the feasibility of establishing geographically separated but related facilities in each of these counties. These "branch" institutions should be under the super-

vision of the presently constituted boards of trustees.

The Plan emphasizes the principle of low-cost education to govern all deliberations on the subject of tuition. It states that to rationalize a tuition policy which would restrict college opportunities would be self-defeating and indefensible.

Based on full-time enrollment projections, and reflecting 1960 cost levels, the Plan estimates that the total expenditure required for community colleges in New York will be \$140,000,000 by 1970, in addition to that already programmed through 1965.

* * *

A pilot program study entitled Radiation Technology has been instituted at

Montgomery Junior College, Takoma Park, under the direct sponsorship of the United States Public Health Service, Division of Radiological Health. The program will come under the supervision of Dr. Robert S. Zimmer, Dean of Extension at Montgomery Junior College.

The new field of study will include a basic core of pre-professional courses in biology, chemistry, physics, Fundamentals of Nuclear Energy, Radiation Instrumentation, Biological Effects of Radiation, Radiation Hazard and Control, and typical liberal arts studies. The National Advisory Committee on Radiation has estimated that 4,000 radiation technicians will be needed by 1970.



Recent Writings... JUDGING THE NEW BOOKS

The Medical Secretary: Terminology and Transcription, by Kathleen Berger Root and Edward E. Byers (Second Edition; 376 pp.; McGraw-Hill; \$5.25).

To the college instructor skeptical about the extent and quality of "revisions" in the second edition of a textbook, this new medical secretarial text is a refreshing change. The faults of the earlier *Dictation for the Medical Secretary* (by the same authors) have nearly all been eliminated in the new book.

Until September, 1960, when the second edition appeared, an instructor in medical stenography found it impossible to rely wholly on the older textbook for material. The first twenty lessons of the first edition bored the student with repetitious material about physical therapy, psychological data, and rehabilitation records, each lesson repeating almost the same terminology. In the earlier edition, the instructor soon learned not to rely on the completeness of the shorthand preview to each lesson. Students would be "stumped" from the very beginning by unfamiliar medical terms in the dictation paragraphs which had not been explained or previewed for shorthand practice.

The new *Medical Secretary* is truly a revision of all that was uninteresting or incomplete in the former edition. The student now immediately gets his teeth into medical terminology and dictation material, for the book opens with a section on cardiology. Each lesson is previewed thoroughly in three parts: (1) a section devoted to the development of medical words by the use of roots, prefixes, and suffixes; (2) a list of special abbreviated shorthand forms to be used for those medical terms occurring most frequently; (3) a terminology preview giving the shorthand outlines, spelling, pronunciation, and meaning for the medical terms to be used in the dictation practice which follows. Frequently included is a "Medical Secretarial Guide," with up-to-date pointers on the medical secretary's duties, qualifications, educational requirements, etc.

The new text is divided into seventy lessons, each five comprising a unit covering terminology and dictation material in one specialized field of medicine. There are fourteen such units covering medical specialties from cardiology to thoracic medicine, from antibiotics to orthopedics.

This reviewer has been teaching medical stenography for several years and has accumulated cupboards full of supplementary material—all necessary with the older textbook. With this new edition, most of those cupboard shelves are empty, for no longer is it necessary to hand out material to build more extensive medical vocabularies, to supplement sketchy coverage on medical records and reports, to speed up students' shorthand by the use of special abbreviated shorthand forms. The new edition takes care of all these needs.

The conscientious instructor will still find some necessity for using material not included in the new book. There is little or no discussion of the use of insurance forms—an increasingly important part of the medical secretary's responsibilities. Also, the new *Medical Secretary* has not included typical medical correspondence and other office-type dictation for practice.

The second edition of the *Medical Secretary* is, on the whole, such a complete text for the teaching of medical stenography that even a novice at the job could turn out well-trained, employable medical secretaries. Medical secretarial students are always highly motivated, and this new text keeps interest at a high pitch and learning in high gear from the very first page to the last.

THELMA E. HOLDRIDGE
Los Angeles City College
Los Angeles, California

Human Development, by Phyllis C. Martin and Elizabeth Lee Vincent (541 pp.; The Ronald Press; \$6.50). This book was written by two persons who are well acquainted with histology, anatomy, embryology, physi-

onomy, psychology, genetics and sociology. The book has the correct title because it traces human development all the way from theoretical possibilities of genes in the chromosomes to the dominant and recessive factors in sperms and eggs and then through the period of prenatal development to the birth process. It then summarizes the chief characteristics in development from infancy to death.

The book is intensely interesting. The style of writing is not that of exclusively "ivory tower" objectivity, but, while scientifically accurate, it shows interest in the whole of man's life including those fields of interest where objective knowledge is unavailable or undetermined. No effort is made to compartmentalize the data, but all kinds of scientific information are adduced to give the best possible picture of the situation which an eager curiosity would like to see.

Fifteen chapters and an index are contained within 541 pages. Many chapters begin with well-known Biblical quotations. Whether those chapters that lack such an introduction indicate lack of suitable scriptural knowledge is not manifest. Quotations from classical English poetry are also given a minor prominence and make the reading of the book more fun than would be true if they were omitted.

This book is well illustrated. Line drawings total about 490 and help to give proper understanding to the text and many charts and diagrams give rapid summaries of data for comparison and contrast. Two sets of charts are especially noteworthy. Pages 46 to 49 give a detailed summary of various items of fetal development from 2.5 weeks to 5-10 months

and pages 52 to 57 summarize 15 items from birth to the age of 65 years.

The various chapters give not only the physical development sequences but also deal with physiology, psychology and sociology. Typical chapter headings are "The Sense Organs," "The Endocrine System" and the "Reproductive Apparatus," representing anatomical development. "How We Get Our Energy" is largely physiological. "The Physiology and Psychology of Emotion" is self-explanatory. Ecology is represented by the last chapter, "Man's Relationship with His Natural Environment."

A student who has had a little elementary biology should like this book. The price is moderate, the type and binding good. Each chapter has a few references and questions intended to evoke a little independent thinking, and these features add to its effectiveness.

Vernon E. Wood
Mars Hill College
Mars Hill, North Carolina

The Oregon Trail by Francis Parkman (Signet, 50¢). This current reprint of the Parkman classic has a foreword by a leading contemporary writer on the West, A. B. Guthrie, Jr. Recommended for all junior college classes in American history and literature.

Erewhon by Samuel Butler (Signet, 50¢). Written years ago, Butler's famous satire (*Erewhon* is nowhere spelled backwards) anticipates more modern books

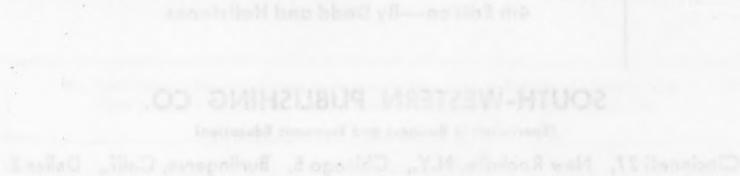
such as Orwell's *1984* and Huxley's *Brave New World*. Besides literature classes this title might also be of minor interest to junior college classes in political science and economics.

The United Nations and How It Works by David Cushman Coyle. (Mentor, 50¢). Here is a 1960 revision of a first-rate comprehensive guide to what many call the most important organization in the world. Contains the United Nations Charter in the appendix. Strongly recommended for junior college classes in political science.

The Forest and the Sea (Mentor, 50¢). A look at the economy of nature and the ecology of man by Professor Marston Bates, distinguished geologist at the University of Michigan. This book is a little gem to all who are interested in nature, and especially is it of value to junior college departments of the biological sciences.

Four Modern Plays, edited by Henry Popkin (Holt, Rinehart and Winston, 95¢). The plays are *Rosmersholm* by Ibsen, *The Importance of Being Earnest* by Oscar Wilde, *Cyrano De Bergerac* by Rostand, and *The Lower Depths* by Gorky. A lot of fine drama here for less than a dollar! The paper is top quality, and there is even a short bibliography on each dramatist.

Henry Lash
Los Angeles Trade-Technical College
Los Angeles, California



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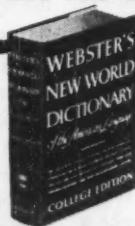
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